## **Mitigation Monitoring Program**

The California Environmental Quality Act (CEQA) requires that a Lead Agency establish a program to monitor and report on mitigation measures adopted as part of the environmental review process to avoid or reduce the severity and magnitude of potentially significant environmental impacts associated with project implementation. CEQA (Public Resources Code Section 21081.6 (a) (1)) requires that a mitigation monitoring and reporting program be adopted at the time that the agency determines to carry out a project for which an EIR has been prepared to ensure that mitigation measures identified in the EIR are implemented.

The Mitigation Monitoring Program (MMP) for the UC Santa Cruz 2005 Long Range Development Plan (LRDP) is presented as a table that includes the full text of the mitigation measures identified in the Final EIR. The Campus may modify the means by which it will implement a mitigation measure, as long as the alternative means of implementing the measure ensures compliance during project implementation. The MMP describes implementation and monitoring procedural guidance, responsibilities, and timing for each mitigation measures identified in the EIR, including:

Mitigation Number: Identifies the number assigned to the mitigation measure in the Final EIR.

**Applicability/ Project Type:** For the LRDP, this column identifies whether the mitigation measure applies to general campus operations, to only certain types of projects (e.g., those that would result in increased population on campus), or to all projects under the 2005 LRDP.

**Location**: Identifies the specific parts of campus to which the mitigation measure applies in instances where the identified mitigation measures apply only to specific sites or types of sites on campus (e.g., forested areas or on steep slopes). ). For a specific project proposed at a single site, this column does not apply, and will not be included in the MMP table.

**Mitigation Measure:** Provides full text of the mitigation measure as given in the Final EIR. In cases where another mitigation is cross-referenced (for instance, where a project-specific mitigation measures cites an LRDP mitigation measure for implementation), the text of the cross-referenced mitigation is provided.

**Mitigation Procedure:** Summarizes the steps to be taken to implement the mitigation measures.

**Responsible Party:** Assigns responsibility for implementation of the mitigation measure.

**Mitigation Timing:** Identifies the stage of the project during which the mitigation action will be taken.

**Monitoring and Reporting Procedure:** Specifies procedures for documenting and reporting the mitigation implementation.

Note that table headings may be adjusted in project level MMPs to reflect the particular circumstances of the project. For example, all actions to the 2300 Delaware Avenue Project are at a single site, so the location column is irrelevant and has been deleted. Similarly, "Project Type" is not relevant for Family

Student Housing or 2300 Delaware Avenue, but is replaced by "Applicable Phase," which refers to the project stage (planning, design, construction, or occupancy) to which the mitigation applies.

The responsibilities of mitigation implementation, monitoring and reporting extend to numerous UC Santa Cruz departments and offices. The Unit Director or department lead officer of the identified unit or department will directly be responsible for ensuring that the responsible party complies with the mitigation. Physical Planning and Construction is responsible for the overall administration of the program and for assisting relevant departments and project managers with their oversight and reporting responsibilities, to ensure that they understand their charge and complete the required procedures accurately and on schedule.

In addition to overseeing the specific procedures identified in the following table for implementation of each mitigation measure, Physical Planning and Construction will prepare an Annual Mitigation Monitoring Report, similar to those reports prepared annually or biannually by the Campus under the 1988 LRDP. The Annual Mitigation Monitoring Report will report on progress in implementation of general campus mitigation measures (that is, those measures that are not tied to specific development projects) and, for each project under development during the preceding period, will identify applicable mitigation measures, and will document the status of compliance for each project. The Annual Mitigation Monitoring Report will be available for review by appointment at the office of Physical Planning and Construction on campus.

Table 4-1 2005 LRDP Mitigation Monitoring Program

Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP AES-3A	All projects	Lower campus meadows	For development projects around the lower campus meadows that have the potential to affect scenic resources, the Campus shall conduct visual simulations and, when necessary, shall modify project design to maintain scenic resources, through measures	Review project plans and visual simulations for potential adverse effects to scenic resources impacts.	PP&C Project Manager	Prior to project design approval	Confirm that design takes scenic resources into account; document in project file and environmental document.
			such as changes in scale, massing, building orientation, building finish, screening or other measures to reduce the visual obtrusiveness of the construction.	If project as designed would impact scenic resources, incorporate project modifications to minimize impacts, as described in mitigation measure, in consultation with DAB.	PP&C	Prior to project approval	Describe visual analysis and design measure to mitigate impacts (as relevant) in project-level environmental report.
LRDP AES-3B	All projects	Academic Core around Great Meadow	For Academic Core development in and bordering the Great Meadow, the Campus shall limit the removal of natural vegetation outside building footprints, and cluster development at meadow edges.	Select project sites that allow clustering at edge of meadow.  Verify that project design	PP&C PP&C	During project planning  Prior to final	Document in project file that selected site is consistent with clustering at edge of meadow.  Confirm during plan
				limits removal of natural vegetation.		design approval	review.
LRDP AES-3C	Meyer Drive Extension	Great Meadow	The Campus shall design the alignment and grades of the new Meyer Drive extension to be below the line of sight as viewed from Hagar Drive. If necessary, earthen berms shall be incorporated into the roadway design for purposes of screening the new roadway.	Create visual simulations of roadway as viewed from Hagar Drive. If roadway appears above the line of sign as viewed from Hagar Dr., incorporate earthen berms into design.	PP&C	During project design and prior to design approval	Confirm during plan review. Document in project file.

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<sup>2.</sup> AMMR- Annual Mitigation Monitoring Report

Table 4-1 2005 LRDP Mitigation Monitoring Program

Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP AES-4	All projects that include features that would be visible above ground after construction is complete	In Historic District or within 500 feet of boundaries	Until the final Cowell Ranch Historic District Management Plan is completed, for projects in the Cowell Ranch Historic District or within 500 feet of its boundaries, the Campus shall take the following measures into account in project design to preserve the historic visual quality of the historic district:				
			To the greatest extent feasible, a buffer of at least 200 feet shall be maintained between the boundaries of the historic district and new building development that would be visible against the backdrop of historic buildings from significant campus viewpoints.	For projects in vicinity of Historic District, determine distance from boundaries. Verify that project is at least 200 feet from district boundaries.	PP&C	During initial project siting	Confirm during plan review and document in project file.
			New buildings or structures within 500 feet of the district boundaries shall be subject to review by the Design Advisory Board to ensure that design is consistent with or complementary to the historic aspect of the district and its buildings with respect to scale, massing, architectural style and materials, such that the rural historic visual character of the district is maintained.	DAB will review project design for consistency with Historic District, as described in mitigation measure.	PP&C	At the time of DAB review, prior to design approval	Include DAB agenda and meeting notes in project file; report results of DAB assessment in environmental document.

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LRDP AES-4 (cont)			Once the Final Cowell Ranch Historic District Management Plan is adopted, all projects within adjacent areas identified in the management plan shall be evaluated for consistency with the visual design guidelines included in the Management Plan.	DAB will review project design for consistency with visual design guidelines of the Historic District Management Plan.	PP&C	Prior to design approval	Include DAB agenda and meeting notes in project file; report results of DAB assessment in environmental document and meeting notes in project file.
LRDP AES-5A	All projects	All	Prior to design approval of development projects under the 2005 LRDP, the UC Santa Cruz Design Advisory Board shall review project designs for consistency with the valued elements of the visual landscape identified in the 2005 LRDP, and the character of surrounding development so that the visual character and quality of the project area are not substantially degraded.	DAB will review project design for consistency with valued elements of landscape as defined in LRDP EIR.	PP&C	Prior to design approval	Confirm DAB review and in project file.
LRDP AES-5B	All projects	In and bordering forests	For projects in redwood forest areas that are visible from areas outside the forest, building heights will be designed to be no higher than the height of the surrounding trees.	Review schematic elevations to compare relative height of trees and buildings. Design for building height below tree height.	PP&C/ Project Architect	During project planning and design review	Document on schematic elevations in project file.

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Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP AES-5B (cont)			If a building taller than all the surrounding trees is proposed for construction in a redwood forest area, visual simulations shall be prepared. If the proposed design is determined, in consultation between the visual consultant and the campus, to be degrading to the visual character of the campus, the design will be modified to reduce the visual obtrusiveness of the proposed project.	If building would be taller than surrounding trees, prepare visual simulations and modify the building design if necessary to reduce visual obtrusiveness.	PP&C	Prior to final design approval	Confirm that building does not obtrude above trees as specified, and document in environmental analysis and project file.
LRDP AES-5C	All projects	All	Campus development shall be designed and construction activities shall be undertaken in a manner that shall minimize removal of healthy and mature trees around new projects, except where the proximity of adjacent mature trees to new development is expected to result in a safety hazard or the ultimate decline of the trees.	Design to avoid removal of trees other than for building footprint, hazard mitigation, access and/or utilities.  Review project tree removal plan to ensure that trees would not unnecessarily be removed.	PP&C PP&C	During project design.  Before project goes out to bid.	Document tree removal assessment in project file.  Document tree removal plan review in project file.
LRDP AES-5D	General	NA	The Campus shall continue its Site Stewardship Program to help maintain and restore natural areas on campus.	Continue Site Stewardship Program.	Physical Plant	Ongoing	Physical Plant report in AMMR <sup>2</sup> on Site Stewardship Projects.
LRDP AES-5E	All projects	Campus Support Area on Empire Grade	The Campus shall ensure that the site plan and design of any development in the Campus Support area on Empire Grade Road adjacent to Cave Gulch: (1) includes an undeveloped visual buffer between the new structures and Empire Grade Road; (2) maintains the natural vegetation in this buffer while adequately managing the fire hazard;	Include buffers in project siting as specified in mitigation measure.  Design site to maintain natural vegetation in buffer and to screen views of on-	PP&C/ Project Architect	During project planning  During project design and prior to project	Document buffer consideration in siting, in project file.  Confirm design for buffers; document in environmental

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Mitigation Number LRDP AES-5E (cont)	Applicability/ Project Type	Location	Mitigation Measure and (3) provides an arrangement of buildings and vegetation on the site to screen views of on-site activities from Empire Grade Road and Santa Cruz Waldorf School.	Mitigation Procedure site activities.	Responsible Party <sup>1</sup>	Mitigation Timing approval	Monitoring and Reporting Procedure document and project file.
LRDP AES-5F	All projects	All	Trees identified for removal will be evaluated for their aesthetic value as part of the environmental review process of individual projects.  Individual construction projects that result in the removal of large oak trees or other large unique trees considered to be aesthetically valuable components of the landscape shall replace such trees at a 1-to-1 ratio, either on site, or elsewhere on campus via a contribution to the campus's Site Stewardship program for planting replacement trees.	Review tree removal plan and assess aesthetic quality of trees. Modify plan where possible to avoid removal of such trees.  Identify locations for any necessary tree replacement in landscaping plan or, if off site, in consultation with Grounds and Buildings. Identify project contribution to Site Stewardship Program if off site replacement.	PP&C/ Grounds Services	During environmental review and prior final design approval  During site landscape design and prior to tree removal	Document assessments in environmental document.  Document replacement tree locations; verify 1:1 ratio and project contribution (as relevant) in project file.
LRDP AES-6A	All projects	All	Where there is a potential for reflective glare, as along meadow margins, project design shall provide for the use of non-reflective exterior surfaces, or other design measures to avoid new sources of reflected light.	Review design for inclusion of measures to avoid new sources of reflected light.	PP&C	Prior to design approval	Document review of design review for light and glare in project file and environmental document.

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Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP AES-6B	General	NA	Lighting for new development projects shall be designed to include directional lighting methods shielded to minimize light spillage and minimize atmospheric light pollution. This lighting should be compatible with the visual character of the project site and meet the UC Regents' Green Building Policies.	Revise Campus Standards as needed to incorporate mitigation requirements.	PP&C	Within one year of LRDP approval	Confirm Campus Standards are consistent with mitigation and report in AMMR.
LRDP AES-6C	All projects	All	As part of the design review process, the UC Santa Cruz Design Advisory Board shall consider project-related light and glare and the Campus shall require the incorporation of measures into the project design to limit both to the extent allowed by code.	DAB will review specific project plans to ensure the inclusion of measures to minimize light and glare.	PP&C	At the time of design review; prior to design approval	Retain DAB agenda and minutes in project file.
LRDP AES-6D	General	NA	The Campus shall require that field lights used for the illumination of sports and recreation fields be turned off after 11 PM to minimize night lighting sources on campus, except when special events are scheduled.	OPERS will institute procedures to require and enforce that field lights be turned off after 11 PM.	OPERS	Within one year of LRDP approval	OPERS confirm annually that procedures are consistent with mitigation.
LRDP AES-6E	All projects	All	As part of the design review process, UC Santa Cruz Design Advisory Board shall review outdoor lighting fixtures for roads, pathways, and parking facilities to ensure that the minimum amount of lighting needed to achieve safe routes is used, and to ensure that the proposed illumination limits adverse effect on nighttime views.	Revise Campus Standards as needed to incorporate mitigation requirements.  DAB will consider lighting design during design review of each project to ensure that lighting is consistent with standards.	PP&C DAB	Within one year of LRDP approval  At the time of DAB review, prior to project design approval	Confirm Campus Standards are consistent with mitigation and report in AMMR.  Retain DAB agenda and minutes in project file.

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LRDP AIR-1	All projects	All	The Campus shall apply standard MBUAPCD-recommended mitigation measures during construction of new facilities under the 2005 LRDP, as appropriate:	Revise Campus Standards as needed to include mitigation requirements.	PP&C	Within one year of LRDP approval	Confirm Campus Standards have been revised.
			<ul> <li>Water all active construction areas at least twice daily.</li> <li>Prohibit all grading activities during periods of high wind (over 15 mph).</li> </ul>	Identify relevant measures for each project and provide list in bid documents.	PP&C	Before project goes out to bid	Confirm measures are included in bid documents and required in contract.
			<ul> <li>Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).</li> <li>Apply non-toxic binders (e.g., latex acrylic copolymer), as appropriate, to exposed areas after cut and fill operations and hydroseed area.</li> <li>Require haul trucks to maintain at least 2 feet of freeboard.</li> <li>Cover all trucks hauling dirt, sand, or loose materials.</li> <li>Plant vegetative ground cover in disturbed areas as soon as possible.</li> <li>Cover inactive storage piles.</li> <li>Install wheel washers at the entrances to construction sites for all exiting trucks.</li> <li>Pave all roads on construction sites.</li> <li>Damp-sweep streets if visible soil material is carried out from the construction site.</li> </ul>	Monitor compliance as specified in contract.	PP&C	Throughout construction	Document compliance in project file.

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Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP AIR-1 (cont)			Post a publicly visible sign that specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the Monterey Bay Unified Air Pollution Control District shall be visible to ensure compliance with Rule 402.     Each project shall limit the area under construction at any one time.				
LRDP AIR-2A	All projects	All	The Campus shall incorporate, in each new project, design and construction features that conserve natural gas and/or minimize air pollutant emissions from space and water heating. Specific measures that will be considered for each project include, but are not limited to the following:	Review design of each new project to ensure that it incorporates measures to conserve natural gas and/or minimize emissions.	PP&C/Project Manager	During project design, prior to design approval	Verify that conservation measures are included in final project plans and specs and in bid documents.
			<ul> <li>Orientation of buildings to optimize solar heating and natural cooling;</li> <li>Use of solar or low-emission water heaters in new buildings; and/or</li> <li>Installation of best available wall and attic insulation in new buildings</li> </ul>				
LRDP AIR-2B	General	NA	The Campus shall implement LRDP Mitigation TRA-2B to reduce motor vehicle trips.	See Mitigation TRA-2B.			
LRDP AIR-2C	New gas turbines	Central Plant	The Campus shall install VOC and NOx controls on the new gas turbines to reduce emissions by 90 percent (e.g., Oxidation catalyst and SCR).	Review design specs for new turbines to ensure that they include the required controls.	PP&C/ Physical Plant	During project design and before specs go out to bid	Confirm that turbine specs and bid documents include required controls and

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Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure document in project files.
LRDP AIR-4A	General	NA	The Campus will work with AMBAG to ensure that campus growth associated with the 2005 LRDP is accounted for in the regional population forecasts.	Provide campus-related growth projections to AMBAG. Conduct follow- up discussions with AMBAG as needed.	PP&C	Annually at minimum	Document communications with AMBAG annually; report in AMMR.
LRDP AIR-4B	General	NA	The Campus will work with MBUAPCD to ensure that the campus growth-related emissions are accounted for in the regional emissions inventory and mitigated in future regional air quality planning efforts.	Provide information about projected campus growth-related emissions to MBUAPCD. Conduct follow-up discussions with MBUAPCD as needed.	PP&C	Annually at minimum	Document communications with MBUAPCD annually and report in AMMR.
LRDP AIR-5A	General	NA	The Campus shall develop and implement an emergency generator maintenance-testing schedule consistent with Draft EIR Table 4.3-22.	Develop and implement testing schedule consistent with Draft EIR Table 4.3- 22.	PP&C/ Physical Plant	Within one year of LRDP approval	Verify that testing schedule is consistent with mitigation and report annually in AMMR.
LRDP AIR-5B	Cogeneration facility	Central Plant	If the Campus does not replace the existing cogeneration system with a new system with lower emissions within three years, the Campus shall conduct source tests for acrolein for the Central Plant emergency generator and the Delaval engine, and recalculate the hazard index for acute exposure (HIA) using the results of those tests. If the HIA is greater than 1.0 with Mitigation AIR-5A, the Campus shall reduce emissions from the emergency generator either by: (1) replacing the generator, (2) replacing the engine with a more efficient one, or (3) installing a	Replace existing system or conduct source tests for acrolein and recalculate HIA.  If existing system cannot be replaced and HIA is determined to be >than 1, replace equipment or install controls as needed.	PP&C/ Physical Plant/ PP&C/ Physical Plant/ EH&S	Within three years of LRDP approval  Within 6 months of receipt of HIA results >1	Confirm new system is in place or acrolein testing has been conducted and report results. Report on equipment replacements or controls installed in AMMR.

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Mitigation Number LRDP AIR-5B (cont)	Applicability/ Project Type	Location	Mitigation Measure catalytic oxidizer or other emissions controls.	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP AIR-6	All projects	All	The Campus will minimize construction emissions by implementing measures such as those listed below:  Require the use of cleaner fuels (e.g., natural gas, ethanol) in construction equipment  Require that construction contractors use electrical equipment where possible  Require construction contractors to minimize the simultaneous operation of multiple pieces equipment at a construction site  Minimize idling time to a maximum of 5 minutes when construction equipments not in use  Schedule operations of construction equipment to minimize exposure to emissions from construction equipment.	Revise Campus Standards as necessary to include required measures.  Include measures as appropriate in construction contract standard terms.	PP&C/EH&S PP&C	Within one year of LRDP approval  Within one year of LRDP approval	Confirm that Campus Standards have been updated as required.  Confirm construction contract standard terms include the required measures and report in AMMR.
LRDP AIR-7	General	NA	UC Santa Cruz will continue its efforts in the area of TAC emission reduction.	Campus Standards to continue to require that emergency generators use natural gas and/or propane.	PP&C	Within 6 months of LRDP approval	Confirm Campus Standards include requirement, and report in AMMR.

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LRDP BIO-1A	All projects	North campus	Avoidance. The Campus shall avoid removal or fragmentation of any patch of northern maritime chaparral (NMC) greater than 10 acres in size and any patch of Santa Cruz manzanita (SCM) greater than 0.25 acres in size, where	During project planning, qualified biologist will conduct survey in the vicinity of the project site to precisely map NMC and SCM.	PP&C	During project planning	Retain results of survey in project file.
			feasible, and shall establish a habitat buffer between development and adjacent northern maritime chaparral. The habitat buffer will consist of a band of native vegetation, at least 30-feet wide, between the chaparral patch and the adjacent development. This habitat buffer may be included within the 100-foot-wide fire buffer around buildings	Select site to avoid chaparral and Santa Cruz manzanita and provide habitat buffers as specified in mitigation measure.	PP&C	During site selection	Confirm that selected site avoids chaparral and provides buffer; document avoidance measures in project file.
			in cases where this buffer would be managed by fuel reduction strategies compatible with habitat management (see LRDP Mitigation HAZ-10B).	Design project to include buffers as specified.	PP&C	During project design	Confirm review of buffers in final design review in project file.
			The Campus shall document northern maritime chaparral and Santa Cruz manzanita avoidance and impact minimization efforts in project-level environmental documents. If avoidance is determined to be infeasible, the environmental document shall also explain this conclusion.	Document and quantify mapping and avoidance measures in environmental document as relevant. If avoidance not possible, Implement Mitigation BIO-1B.	PP&C	During environmental review	Include analysis in environmental document including justification if avoidance not feasible.
LRDP BIO-1B	Depends on BIO-1A	North campus	Compensatory Preservation and Management on Campus. Where avoidance as specified in LRDP Mitigation BIO-1B is determined not to be feasible, and a patch 10 acres or larger of northern maritime chaparral will be removed, the Campus shall designate for permanent preservation	In consultation with qualified biologist, select area for preservation and verify that it meets mitigation area and ratios. Biologist to assess and map density and quality of habitat in patch that will be	PP&C	During environmental review	Record bio assessment in environmental document.

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LRDP			and shall manage comparable areas of	removed and in proposed			
BIO-1B			existing northern maritime chaparral	replacement patch to			
(cont)			habitat on campus at a ratio of at least	ensure preservation ratio is			
			1:1. Similarly, for any patch of Santa	adequate.			
			Cruz manzanita 0.25 acres or larger in				
			size that will be removed, the Campus				
			shall designate for permanent				
			preservation and shall manage other				
			areas of Santa Cruz manzanita on				
			campus. Mitigation ratios for Santa				
			Cruz manzanita may vary depending on				
			the density of the stands affected and				
			preserved, as indicated in Draft EIR				
			Table 4.4-3, but must provide				
			preservation at a ratio of at least 1:1. Preservation of northern maritime				
			chaparral and Santa Cruz manzanita				
			may occur at the same site as long as				
			both required mitigation ratios are met.				
			The acreage of northern maritime				
			chaparral to be removed, the acreage				
			and density of Santa Cruz manzanita patches to be removed, and the density				
			of proposed preservation patches shall				
			be assessed based on project-specific				
			analyses using the most detailed and				
			reliable vegetation mapping available.				
			Protection and management planning	Designate protected area.			
			for the proposed preservation areas of		PP&C	Prior to	Confirm site
			northern maritime chaparral and Santa			beginning	designation and
			Cruz manzanita shall occur prior to the			construction	document tin project
			removal of these resources due to				file and on campus
			development. Management to enhance				base maps.
			habitat and species dominance and				
	1		prevent succession to hardwood or				

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Table 4-1 2005 LRDP Mitigation Monitoring Program

Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure evergreen forest shall continue in	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
			perpetuity.				
LRDP BIO-1B (cont)			Within one year of protecting a stand, the Campus shall prepare a management and monitoring plan that describes quantitative biological goals, management techniques, safety procedures, monitoring protocols, schedules and success criteria for that stand. The management plan will be developed in consultation with CDFG and in coordination with the Campus	Biologist to develop management, monitoring plan and schedule as specified, in consultation with Campus and CDFG and taking into account Campus Vegetation Management Plan.	PP&C	Within one year after project construction begins	Verify that management plan is complete and retain in project file.
			Vegetation Management Plan (see LRDP Mitigation HAZ-10B) and will be consistent with safety requirements. Management plan components shall include monitoring and control of nonnative invasive species and monitoring and removal of mixed hardwood forest trees.	Carry out management and monitoring plan.	PP&C/Physical Plant	As specified in management and monitoring plan	As specified in management and monitoring plan.
			The goals of management for northern maritime chaparral and Santa Cruz manzanita shall be to reduce the incursion of mixed hardwood forest and non-native invasive species into these	Qualified biologist to resurvey management patch and review and revise plan as needed.	PP&C	At five year intervals from beginning of construction	Confirm receipt of biologist's technical review and retain report on file.
			stands, encourage regeneration of chaparral species including Santa Cruz manzanita, and to maintain or increase the density of Santa Cruz manzanita in the chaparral, with the overall goal of maintaining and enhancing 1 acre of comparable or better quality chaparral habitat or Santa Cruz manzanita for every 1 acre removed.	Biologist assess success of management, determine whether another preservation or restoration site should be selected.	PP&C	10 years after beginning of management	Confirm receipt of biologist's technical review and retain report in file.

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Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP BIO-1B (cont)	Depends on BIO-1A	North campus	The effectiveness of the management plan will be reviewed at five-year intervals. If success criteria, as defined in the Management Plan, are not achieved within five-years, the Campus shall review and revise the management plan. If it is determined after 10 years that the management effort was not successful at the selected site, or was successful for only a portion of the site, and is not likely to be successful, the Campus either shall designate another area of chaparral on campus for long-term management; or shall implement LRDP Mitigation BIO-IC (Restoration). If management was successful in a portion of the preserved area, sufficient acreage will need to be designated in a new area only to mitigate that portion of the acreage not previously mitigated at the original site.	Campus to select and designate addt'l chaparral area or site or restoration site of adequate size and quality, in consultation with Biologist.	PP&C	After 10 years if initial site does not meet success criteria of management plan	Confirm site designation and document in project file and on campus base maps.
			Each patch successfully managed to prevent succession will be protected and managed in perpetuity either through land use designation such as HAB (Campus Habitat Reserve), through a conservation easement or deed restriction, or through a similar permanent mechanism.	Campus to identify permanent protection mechanism and ensure permanent designation is in place for successful patches. Amend LRDP if necessary to accommodate permanent designation.	PP&C/Physical Plant PP&C	Upon confirmation that management success criteria have been met  When designation mechanism is determined	Confirm that permanent mechanism is in place and document in project file and on campus base map.  Prepare environmental documentation of LRDP amendment as appropriate.

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Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP BIO-1C	Depends on BIO-1B	North campus	Restoration. If no patch of northern maritime chaparral or Santa Cruz manzanita of adequate size or suitable density can be identified for preservation and management on campus, or if mitigation is not successful or only partially successful after 10 years at a preservation site, the Campus may designate a comparable, preferably contiguous, area of chaparral-forest transition habitat on campus for preservation and restoration. Northern maritime chaparral or Santa Cruz manzanita removed through development, or any portion of the patch not previously mitigated through preservation of a comparable patch, shall be mitigated through designation of chaparral-forest transitional habitat for restoration, at a ratio of 3:1, with the management goal of successfully restoring the acreage to chaparral at a 1:1 ratio for every acre lost to development.	Campus, biologist consult with CDFG as needed to identify appropriate restoration site; Campus designate and protect site as specified.	PP&C	As specified in BIO-1B	Confirm site selection and designate on campus base map.
			Portions of the chaparral-forest transition area that are contiguous with protected northern maritime chaparral and Santa Cruz manzanita areas will be given the highest priority for restoration in order to minimize edge effects.	Biologist prepare management plan as specified under BIO-1B.	PP&C	Within 1 year of site designation, as specified in BIO-1B	Confirm that plan was prepared and retain copy in project file.

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Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP BIO-1C (cont)			Within 1 year of designation, as specified in Mitigation BIO-1B, above, management and restoration and monitoring plan, including quantitative success criteria, shall be prepared for the restoration area. Success criteria for the restoration shall include providing equivalent or greater overall cover of native chaparral species (such as brittleleaf manzanita, Santa Cruz manzanita, sensitive manzanita, wartleaf ceanothus, blue blossom and chamise) as is found in the northern maritime chaparral that will be lost to development. Among the restoration techniques that could be used in the	Implement management and monitoring as specified in plan.  Biologist assess success of management; if needed, Campus to select and designate and manage addt'l chaparral area or site or restoration site of	PP&C/ Physical Plant  PP&C/ Physical Plant	As specified in management and monitoring plan  10 years from initial designation of restoration patch	As specified in management and monitoring plan.  Confirm designation and include on campus base map.
			chaparral-forest transition areas are tree removal, monitoring and control of non-native species, and prescribed burning, where this can be conducted safely. Management of the site shall continue in perpetuity to protect the northern maritime chaparral management areas from succession to mixed evergreen forest.	or restoration site of adequate size and quality, in consultation with biologist.			
			If northern maritime chaparral restoration does not meet the success criteria after 10 years, restoration areas shall be either replanted, or restoration attempted on another, suitable site on campus. Once the management success criteria have been met, the Campus will designate the parcel for preservation in perpetuity, as described under Mitigation BIO-1B, above.	Campus to ensure permanent designation is in place for successful patches.	PP&C	Upon determining restoration successful	Confirm permanent designation and include on campus base map.

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Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
		If restoration efforts on campus are not successful, the Campus may explore options for mitigation off campus, through mechanisms such as contribution to a mitigation bank or other management effort, provided that this will ensure protection and management of chaparral at the ratio of at least 1:1 for every acre lost on campus. Should the Campus elect to participate in an off-site mitigation program, priority will be given to sites that are closest to UC Santa Cruz in order to protect local genetic diversity.	Explore options for off site mitigation contributions an implement as needed.	PP&C	Upon finding on- site restoration/ management to be unsuccessful	Document in project file.
All projects	North campus- Crown Meadow	The Campus shall avoid removal of coastal prairie through redesign of proposed development areas and road alignments. The design of all campus facilities shall include a buffer between development and prairie in order to reduce indirect impacts from edge	During project planning, qualified biologist conduct survey proposed sites for coastal prairie.  Select site and project	PP&C PP&C	Project planning/site selection  Prior to approval	Retain results of survey in project file.  Confirm that selected site avoids coastal
		effects such as increases in noxious weed species. The width of each buffer will depend on the site and the nature of adjacent development. The minimum buffer shall be 30 feet from the edge of paved areas or buildings to the edge of coastal prairie. Landscaped areas are acceptable within the habitat buffer, provided that they are planted with species that are not invasive in coastal prairie (i.e., no non-native grasses) and	footprint to avoid coastal prairie and provide buffer as specified in mitigation measure.  Project footprint to include buffer around development.	PP&C	Prior to project approval	prairie and provides buffer and document on campus base map.  Confirm design include buffer and document on campus base map.
	Project Type	All projects North campus-Crown	Project Type  Location  If restoration efforts on campus are not successful, the Campus may explore options for mitigation off campus, through mechanisms such as contribution to a mitigation bank or other management effort, provided that this will ensure protection and management of chaparral at the ratio of at least 1:1 for every acre lost on campus. Should the Campus elect to participate in an off-site mitigation program, priority will be given to sites that are closest to UC Santa Cruz in order to protect local genetic diversity.  All projects  North campus-Crown Meadow  The Campus shall avoid removal of coastal prairie through redesign of proposed development areas and road alignments. The design of all campus facilities shall include a buffer between development and prairie in order to reduce indirect impacts from edge effects such as increases in noxious weed species. The width of each buffer will depend on the site and the nature of adjacent development. The minimum buffer shall be 30 feet from the edge of paved areas or buildings to the edge of coastal prairie. Landscaped areas are acceptable within the habitat buffer, provided that they are planted with species that are not invasive in coastal	If restoration efforts on campus are not successful, the Campus may explore options for mitigation off campus, through mechanisms such as contribution to a mitigation bank or other management effort, provided that this will ensure protection and management of chaparral at the ratio of at least 1:1 for every acre lost on campus. Should the Campus elect to participate in an off-site mitigation program, priority will be given to sites that are closest to UC Santa Cruz in order to protect local genetic diversity.    All projects	Project Type	Project Type

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Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP BIO-2B	Depends on BIO-2A	North campus— Crown Meadow	The Campus shall mitigate for unavoidable losses of coastal prairie by restoring coastal prairie at a 3:1 ratio. Before impacts to coastal prairie occur, a management and monitoring plan, including quantitative success criteria, shall be prepared for the restoration site. Success criteria for the restoration shall include providing equivalent or greater overall (rather than species specific) cover of native perennial bunchgrasses (such as purple needlegrass, California oatgrass, and Pacific panic grass) and native forbs (such as white hyacinth and dwarf brodiaea) as is found in the coastal prairies that will be lost to development. Management of the site shall continue for at least 15 years to protect the coastal prairie management areas from reverting to annual grassland. If coastal prairie restoration does not meet the success criteria after 5 years, restoration shall be remedied (e.g., replanting) or restoration	In consultation with qualified biologist, select area for preservation and verify that it meets mitigation criteria.  Provide mechanism for preservation.  Develop management and monitoring plan.  Carry out management and monitoring plan.	PP&C PP&C PP&C P&C/Physical Plant	Prior to project environmental approval  Before project construction begins.  Before project construction begins.  As specified in management and monitoring plan, for 15 years	Address issue in environmental document; provide documentation in project file that area meets mitigation criteria.  Confirm that area has been designated for preservation and document on campus base map.  Confirm that plan has been completed and retain copy in project file.  As specified in management and monitoring plan.
LRDP BIO-3A	All projects	North campus	attempted on a new, more suitable site.  At the time that a specific development project is proposed, the Campus shall conduct a site reconnaissance to determine whether wetlands are present on the site. If no potential wetlands are found, no further mitigation is necessary.	Qualified biologist will conduct site reconnaissance and wetlands determination.	PP&C	During project planning	Document results of wetlands reconnaissance in project file.

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Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP BIO-3B	Depends on BIO-3A	North campus	If potential wetlands are found, the Campus shall retain a qualified biologist to conduct a delineation of waters of the state and waters of the United States during the environmental review phase of the project to determine the location, extent, and function of wetlands within 200 feet of development footprints.	Biologist to conduct wetlands delineation.	PP&C	During project planning	Provide documentation of results of delineation in project file.
LRDP BIO-3C	Depends on BIO-3B	North campus	Direct impacts to jurisdictional wetlands shall be avoided in the design of the project. If avoidance is not feasible, the Campus shall implement LRDP Mitigation BIO-3D.	Design project to avoid jurisdictional wetlands.	PP&C	During project design and prior to design approval	Confirm avoidance in project file.
LRDP BIO-3D	Depends on BIO-3C	North campus	If avoidance of wetlands is not feasible, to compensate for temporary or permanent loss of jurisdictional wetlands, the Campus shall restore or create wetland habitat to ensure no net loss of the extent and function of these communities. Prior to any work that	Initiate agency consultation and permitting process as warranted.	PP&C	Initiate consultation during project planning.	To be determined through agency consultation and permitting process; document in project file.
			could disturb jurisdictional or other wetland habitat within the project area, the Campus shall obtain the following permits as required:  • U.S. Army Corps of Engineers – Nationwide or individual permit as required under Clean Water Act Section 404.  • Central Coast Regional Water	Consultation with agency will govern how mitigation is carried out.	PP&C	Permitting to be completed before project construction begins.	To be determined through agency consultation and permitting process; document in project file.
			Quality Control Board – Water quality certification or waiver under Clean Water Act Section 401.				

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LRDP BIO-3D (cont)			<ul> <li>California Department of Fish and Game – Streambed Alteration Agreement.</li> <li>Consultation with these agencies shall govern how the disturbance of wetlands will be mitigated, including the location and extent of wetland restoration or creation.</li> </ul>				
LRDP BIO-4A	Infrastructure Improvements Project and bridge construction projects	North campus	Campus construction projects shall avoid patches of riparian vegetation greater than 0.1 acre in size or longer than 300 linear stream feet. If avoidance is not feasible, LRDP Mitigation BIO-4B shall be implemented.	Qualified biologist to conduct survey of riparian vegetation in the vicinity of the project.  Site selection and design to avoid riparian vegetation as specified in mitigation measure.	PP&C PP&C	During project planning  During project planning and prior to design approval	Documentation of survey results in environmental document and project file.  Confirm avoidance in project file.
LRDP BIO-4B	Depends on BIO-4A	North campus	The Campus shall compensate for the loss of patches of riparian vegetation greater than 0.1 acre in size or longer than 300 linear stream feet through onsite and/or offsite restoration and/or enhancement of riparian habitat in order to ensure that no significant loss of riparian habitat functions and values occurs. The size of the area(s) to be restored will be determined based on a 1:1 mitigation ratio. UC Santa Cruz shall retain a qualified restoration ecologist to develop a conceptual restoration and monitoring plan that describes how riparian habitat will be enhanced or restored and monitored over a minimum period of time. UC	Retain a qualified restoration ecologist to develop restoration and monitoring plan and consult with CDFG and other permitting agencies to determine terms of the plan.  Implement restoration and monitoring plan.	PP&C/ Physical Plant	During project planning and design  During project planning and design	To be determined in consultation with CDFG and other agencies; address in project-level environmental document and document in project file.  To be determined in consultation with CDFG and other agencies.

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Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP BIO-4B (cont)	v v v		Santa Cruz shall be responsible for ensuring that the restoration and monitoring plan is implemented. The terms of the restoration and monitoring plan shall be determined in consultation with the CDFG and other permitting agencies.	V			
LRDP BIO-4C	Depends on BIO-4A	In drainages and on North campus	If more than 0.2 acre or 600 linear stream feet of riparian vegetation is temporarily disturbed or removed at UC Santa Cruz as a result of proposed storm water drainage improvements or other development under the 2005 LRDP, UC Santa Cruz shall restore riparian vegetation within the project area or in the nearest suitable upstream or downstream reach. Riparian vegetation shall be restored following the construction of each project that has a temporary impact on more than 0.2 acre or 600 linear feet of riparian vegetation. UC Santa Cruz shall compensate for the loss through onsite restoration and/or enhancement of riparian habitat in order to ensure that no significant loss of riparian habitat functions and values occurs. The size of the area(s) to be restored will be determined based on a 1:1 mitigation ratio. UC Santa Cruz shall retain a qualified restoration ecologist to develop a conceptual restoration and monitoring plan that describes how riparian habitat will be enhanced or restored and monitored over a minimum period of time. UC Santa	Retain a qualified restoration ecologist to develop restoration and monitoring plan and consult with CDFG and other permitting agencies to determine terms of the plan.  Implement restoration and monitoring plan.	PP&C/ Physical Plant	During project planning and design  As specified in the plan	Confirm plan is in place before disturbance occurs.  As specified in the plan.

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Mitigation Number LRDP BIO-4C (cont)	Applicability/ Project Type	Location	Mitigation Measure  Cruz shall be responsible for ensuring that the restoration and monitoring plan is implemented. The terms of the restoration and monitoring plan shall be determined in consultation with the CDFG and other permitting agencies.	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP BIO-6	All projects	North campus	To avoid or minimize the introduction or spread of noxious weeds, sudden oak death or pitch canker into uninfested areas, UC Santa Cruz shall incorporate the following measures into project plans and specifications for work on the north campus to be conducted under the 2005 LRDP.	Include appropriate practices from list in construction specifications for projects.	PP&C	Before project goes out to bid	Confirm practices are identified in bid documents; document in project file.
			Only certified, weed-free materials shall be used for erosion control.      UC Santa Cruz shall identify appropriate best management practices to avoid the dispersal of noxious weeds, sudden oak death and pitch canker. The Campus shall then include appropriate practices in Campus Standards for construction to be implemented during construction in all north campus areas. Typical best management practices include the use of weed-free erosion control materials and revegetation of disturbed areas with seed mixes that include native species and exclude invasive nonnatives. Best management practices to avoid the spread of sudden oak death and pitch pine canker will be	Monitor contractor practices as specified in contract.	PP&C	Throughout construction	Verify construction monitoring and document in project file.

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LRDP BIO-6 (cont)			determined in consultation with the California Department of Forestry.  In uninfested areas, topsoil removed during excavation shall be stockpiled and used to refill the trench on site if it is suitable as backfill.				
LRDP BIO-7A	General	NA	During periods of adult beetle activity or larval development (January to June), bicycles will not be allowed on trails in Marshall Field or West Marshall Field that support Ohlone tiger beetles.  Temporary fencing and signs will be installed and maintained during this period at trail entry points. The information signs will advise all trail users of the need to avoid these areas. UC Santa Cruz Police and Campus Maintenance staff also shall patrol these areas during this period in order to alert or issue citations to violators and help ensure compliance.	Install and maintain signs and fencing.  Patrol Marshall Field and West Marshall Field between January and June.	Physical Plant  UCSC Police Dept and Grounds Services	From January through June of each year  From January through June each year	Annually, Physical Plant confirm that fencing and signs were installed and maintained as specified.  Annually, UCSC Police Dept and Grounds Services confirm that patrolling was conducted.
LRDP BIO-7B	Plantings north of current Arboretum fence	Arboretum	Any modification of the vegetation composition and/or fencing of Arboretum lands north of the currently enclosed Arboretum or the jointly-managed Campus Natural Reserve immediately northwest of the Arboretum will be developed in consultation with the USFWS in order to protect and maintain potential movement corridors for the Ohlone tiger beetle.	Consult with USFWS. Implement measures required by USFWS.	Arboretum	Before modification of vegetation and/or fencing begins	Confirm that consultation took place and that modifications conform to USFWS requirements.

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LRDP BIO-8A	General	NA	The Campus shall discourage activities by members of the public that could jeopardize the physical integrity, condition or scientific value of the	Create a sign and develop and disseminate materials to discourage cave visitation.	Physical Plant and Campus Natural Reserve	Within one year of 2005 LRDP approval	Confirm educational material is available.
			caves, through appropriate signage, and educational materials, Campus Natural Reserve website information, or other appropriate measures.	Install and maintain sign.	Physical Plant	Within 15 months of LRDP approval	Confirm that sign has been installed.
LRDP BIO-8B	General	Empire Cave	The Campus shall consult with U.S. Fish and Wildlife Service and California Department of Fish and Game to develop a design for a barrier for the entrance of Empire Cave that will not harm special-status species inhabiting the cave. The barrier shall be installed, if determined to be advisable	Consult with USFWS and CDF&G regarding cave barrier design.	PP&C	Within one year of 2005 LRDP approval	Document consultation process.
			by USFWS and CDFG, to prevent illegal access to the cave.	If barrier is recommended, install barrier.	Physical Plant	Within three years of 2005 LRDP approval	Confirm installation of barrier.
LRDP BIO-9	All projects	Moore Creek watershed	To minimize disturbance of breeding and dispersing California red-legged frogs, all ground-disturbing construction activity within the Moore Creek watershed, such as vegetation clearing, site leveling, and grading that occurs within designated red-legged frog habitat shall be conducted during the dry season, (after May 1 and before	Review project construction schedule to ensure that all ground – disturbing construction activities are confined to dry season as specified.	PP&C	Prior to approval of project schedule	Provide documentation in project file.
			October 15). If ground-disturbing activities cannot be completed within the dry season, UC Santa Cruz shall contact the USFWS field office to initiate the following measures and determine whether additional mitigation measures are necessary to minimize potential impacts.	Where construction during rainy season cannot be avoided, consult with USFWS to identify protection measures.	PP&C	Prior to the beginning of construction	Confirm USFWS consultation; Document identified protection measures in project file.

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LRDP BIO-9 (cont)			To prevent California red-legged frogs from moving through the construction site during the rainy season, temporary exclusion fencing shall be placed around the construction work area at least one week prior to the start of construction activities. The fence shall be made of a fine-meshed material that does not allow red-legged frogs to pass through, and the bottom shall be buried to a depth of two inches so that	Confirm that temporary exclusion fencing is delineated on grading plan.  Confirm fencing installed as specified.	PP&C PP&C	Prior to approval of grading plan  Before construction begins, as	Confirm plan review in project file.  Confirm installation in project file.
			California red-legged frogs cannot crawl under the fence.			specified	
			A qualified wildlife biologist shall monitor all construction activities within California red-legged frog upland habitat daily during initial ground-disturbing activities. The biological monitor shall look for red- legged frogs during grading, excavation, and vegetation removal activities.	Qualified biologist will monitor all construction as specified and keep daily monitoring logs.	PP&C	Throughout duration of construction in CLRF habitat	Monitoring logs to be included in project file.
			Once all initial ground-disturbing activities are completed, the biologist shall perform spot checks of the site once a week. If a redlegged frog is discovered, construction activities shall cease in	Stop work provisions will be included in construction contracts.	PP&C	Prior to signature of contracts	Confirm stop work provision included in contract specs; document in project file.
			the immediate vicinity of the individual until USFWS is contacted and the frog has been removed from the construction area by a qualified biologist with a permit to handle the species or by USFWS personnel, and released near a suitable burrow	If Biological Monitor discovers CLRF, construction will halt and USFWS will be contacted, frog relocated as specified.	PP&C	Throughout duration of construction in CRLF habitat	Document any discovery incidents and USFWS consultation in project file and report in AMMR.

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Table 4-1 2005 LRDP Mitigation Monitoring Program

Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure at least 300 feet away from the construction area.	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP BIO-9 (cont)			Prior to the start of daily construction activities, the biological monitor shall inspect the perimeter fence to ensure that it is not ripped or has holes and that the base is still buried. The fence will also be inspected to ensure that no frogs are trapped in the fence. Any frogs found along and outside the fence will be closely monitored until they move away from the construction area.	Biologist will inspect fence daily as specified.	PP&C	Daily during construction in CRLF habitat during rainy season	Confirm daily inspections in monitoring logs and retain logs in project file.
LRDP BIO-11	All projects	All	Prior to construction or site preparation activities, a qualified biologist shall be retained to conduct nest surveys at each site that has appropriate nesting habitat. The survey shall be required for only those projects that will be constructed during the nesting/breeding season of sharp-shinned hawk, golden eagle, northern harrier, long-eared owl, or white-tailed kite (typically February 1 through August 31). The survey area shall include all potential nesting habitat, including mixed evergreen forest, redwood forest, and isolated trees that are within 200 feet of the proposed project grading boundaries. The survey shall be conducted no more than 14 days prior to commencement of construction activities.	Biologist will conduct pre- construction surveys as specified.	PP&C	No more than 14 days prior to commencement of construction activities	Include documentation of results of surveys in project file.

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Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP BIO-11 (cont)			If active nests of sharp-shinned hawk, Cooper's hawk, golden eagle, northern harrier, Vaux's swift, long-eared owl, and white-tailed kite (or other species protected under the Migratory Bird Treaty Act and the California Fish and Game Code) are present in the construction zone or within 200 feet of the construction zone, a temporary fence shall be erected at a distance of	If active nests identified, install and maintain fencing or other protective measures consistent with biologist's recommendations.  Avoidance provisions will be included in contract	PP&C/Biologist/ Contractor  PP&C/ Project Manager	Consistent with biologist's recommendations and specifications in mitigation  Prior to issuing bid documents	Confirm and document in project file that fencing or other protective measures were installed and maintained. Confirm that contract specifications include avoidance clause;
			200 feet around the nest site (or less if determined to be appropriate by the biologist according to the species and site conditions). Clearing and construction within the fenced area shall be postponed until juveniles have fledged and there is no evidence of a second nesting attempt as determined by the biologist.	Project Manager will inform Contractor that no activity will be permitted in protected area until biologist confirms that juveniles have fledged and there is no evidence of second nesting. Biologist will monitor nests and inform project manager when protection may be removed, and document in monitoring report.	PP&C/ Project Manager/ Biologist	Throughout construction as specified	document in project file.  Include biologist's monitoring report in project file.
LRDP BIO-12A	All projects	Central campus grasslands	Prior to any ground disturbance of grassland habitats on the lower campus, a qualified biologist will conduct a preconstruction survey to identify western burrowing owls and/or potential habitat features (e.g., burrows) and to evaluate use by burrowing owls in accordance with current CDFG survey guidelines (CDFG 1995).	Biologist to conduct survey to ID nests of nesting habitat as specified in measure.	PP&C	Prior to any ground disturbance; within 30 days prior to construction	Document that report of survey results is in project file.

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Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP BIO-12A (cont)	Troject Type	Location	Surveys will be conducted within the proposed disturbance footprint and a 500-foot radius of the disturbance boundary of each proposed project. For construction activities occurring within the western burrowing owl habitat (whether during breeding or nonbreading seasons), surveys will be conducted within 30 days prior to construction. The surveys will document whether burrowing owls are nesting on or directly adjacent to disturbance areas. Survey results will be valid only for the season during which the survey is conducted. If western burrowing owls are found during the breeding or nonbreeding season, LRDP Mitigation BIO-12B will be implemented.	Witigation Freeduce	Responsible 1 arty	Tilling	Troccume
LRDP BIO-12B	All projects	Central campus grasslands	If burrowing owls are found, the Campus will avoid all burrowing owl nest sites to the extent feasible.  Avoidance will include establishment of a non-disturbance buffer zone of at least 250 feet around each nest site during the breeding season. If burrowing owls are found outside the breeding season (September 1–January 31), avoidance will include the establishment of at least a 160-foot non-disturbance buffer zone around each burrow being used. In both cases, highly visible temporary construction fencing will delineate the buffer zone.	If owls found, establish non-disturbance buffer around nest or burrow as specified and protect with fencing.	PP&C	Prior to beginning of construction	Document protected area on final grading plan.

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Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP BIO-12B (cont)			If burrowing owl nest sites cannot be avoided, the Campus will conduct passive relocation by installing one-way doors in suitable burrow entrances that are used or may be used by the owls. This measure is described in detail below.  In order to displace burrowing owls without destroying eggs, young, or adults, one-way doors will be installed on owl burrows before February 1 prior to disturbance, and each burrow will be monitored following CDFG's protocol (CDFG 1995). Suitable artificial burrows will be created nearby according to the conservation measures established for this species. The protocol includes monitoring the burrow for a 48-hour period after the one-way doors are installed. The doors will be checked every 24 hours following installation to determine whether they are still intact. If the one-way door is still correctly installed after a continuous 48-hour period (i.e., no animals have dug up the door and rendered it useless), then the one-way door will be removed and the burrows will be excavated using hand tools and plastic tubing to maintain an escape route for any animals still inside the burrow.	If avoidance not possible, conduct passive relocation as specified in measure.	PP&C	Prior to beginning of construction	Document passive relocation in project file.

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Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP BIO-13A	All projects	North campus	If tree removal or grading activity commences on a project site in the north campus during the breeding season of native bat species (April 1 through August 31), a field survey shall be conducted by a qualified biologist to determine whether active roosts of special-status bats (pallid bat, Pacific Townsend's big-eared bat, western red bat, long-eared myotis, fringed myotis, long-legged myotis, yuma myotis, or greater western mastiff bat) are present on the project site or in areas containing suitable roosting habitat within 50 feet of the project site.  Field surveys shall be conducted in late April or early May in the season before construction begins, when bats are establishing maternity roosts but before pregnant females give birth. If no roosting bats are found, no further mitigation would be required.	Conduct pre-construction survey.	PP&C	In late April or early May, in the season before construction begins	Document results of survey in project file.
LRDP BIO-13B	Depends on BIO-13A	North campus	If roosting bats are found, disturbance of the maternity roosts shall be avoided by halting construction until either (1) the end of the breeding season or, (2) a qualified biologist removes and relocates the roosting bats in accordance with CDFG requirements.	Delay construction as specified and/or contract with biologist to remove and relocate roosting bats.	PP&C	Before and during construction	Confirm delay in construction or document removal and relocation activities in project file.

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Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure		
LRDP BIO-14		1 3	All projects	ll projects Wooded areas	A pre-construction/grading survey of all suitable San Francisco dusky-footed woodrat habitat within 100 feet of the proposed grading footprint shall be conducted by a qualified biologist to detect any woodrat nests. The survey shall be conducted no more than 14 days prior to commencement of construction activities.	Qualified biologist will perform survey to identify potential woodrat habitat or nests in and near the project site.	PP&C	Within 14 days prior to construction	Document results in project file.
			If active nests (stick houses) are identified within the construction zone or within 100 feet of the construction zone, a fence shall be erected around the nest site with a 100-foot minimum buffer from construction activities. At the discretion of the biologist, clearing and construction within the fenced area would be postponed or halted until juveniles have left the nest. The biologist shall serve as a construction monitor during those periods when construction activities will occur near active nest areas to ensure that no inadvertent impacts on these nests will occur. If any woodrat is observed within the grading footprint outside of the breeding period, individuals shall be trapped and relocated to a suitable location in proximity to the project site by a qualified biologist in accordance with CDFG requirements, and the nest dismantled so it cannot be reoccupied.	If woodrat nest(s) present, protect with fencing and/or delay construction. Biologist will monitor construction activities near active nest sites.	PP&C	Before and during construction as required	Confirm implementation of protective measures and of monitoring.		

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Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP BIO-15	Arboretum plantings between Moore Creek and Great Meadow	Lower campus	New fencing planned for installation around Arboretum plantings between Moore Creek and the Great Meadow shall be constructed to allow for the movement of mammals across or around the barrier.	Design fencing in consultation with wildlife biologist to allow for mammal movement.	Arboretum	During project design	Document in project file that fence design allows for mammal movement.
LRDP CULT-1A	All projects	All	As early as possible in the project planning process, the Campus shall define the project's area of potential effects (APE) for archaeological resources, based on the extent of ground disturbance and site modifications anticipated for the proposed project. The Campus shall also review confidential resource records to determine whether complete intensive archaeological survey has been performed on the site and whether any previously recorded cultural resources are present.	Define area of potential effects. Conduct records search to determine whether project site has been surveyed and whether known resources are present.	PP&C	During planning/ environmental review	Document in project files that records search was conducted.
LRDP CULT-1B	All projects which will disturb native soils	All	Where native soils will be disturbed, the Campus shall provide and shall require contractor crews to attend an informal training session prior to the start of earth moving, regarding how to recognize archaeological sites and artifacts. In addition, campus employees whose work routinely involves disturbing the soil shall be informed how to recognize evidence of potential archaeological sites and artifacts. Prior to disturbing the soil, contractors shall be notified that they are required to watch for potential archaeological sites and artifacts and to	Provide training session.  Include in contract specifications the requirement that contractors watch for potential archaeological sites and artifacts and to notify campus if any are found.	PP&C/ Ground Services	Prior to start of earth moving  Before project goes out to bid	Confirm that training was conducted.  Confirm that requirements are in contract specifications.

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Mitigation Number LRDP CULT-1B (cont)	Applicability/ Project Type	Location	Mitigation Measure notify the campus if any are found. In the event of a find, the Campus shall implement LRDP Mitigation CULT-1G, below.	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP CULT-1C	All projects	All	For project sites that have not been subject to prior complete intensive archaeological survey, the Campus shall ensure that a complete intensive surface survey is conducted by a qualified archaeologist during project planning and design and prior to soil disturbing activities. If an archaeological deposit is discovered, the archaeologist will prepare a site record and file it with the California Historical Resource Information System. In the event of a find within the area of potential effects, the Campus shall consult with a qualified archaeologist to design and conduct an archaeological subsurface investigation and/or a construction monitoring plan of the project site to ascertain the extent of the deposit relative to the project's area of potential effects, to ensure that impacts to potential buried resources are avoided.	As part of project-level environmental analysis, qualified archaeologist shall review and results of previous archaeological survey and augment as needed.  If subsurface resource is identified on the project site, subsurface boundaries will be determined either through archaeological excavation or construction monitoring to avoid impacts.	PP&C	During project-level environmental analysis  During project planning and design	Include tech report of survey in project file.  Document results of investigation in environmental document; confirm that construction monitoring plan is incorporated.
LRDP CULT-1D	Projects where a cultural resource is identified in the area of potential effects	All	If it is determined that the resource extends into the project's area of potential effects, the Campus shall ensure that the resource is evaluated by a qualified archaeologist, who will determine whether it qualifies as a historical resource or a unique archaeological resource under the	Qualified archaeologist will assess each identified resource for CRHR eligibility through research or testing.	PP&C	Prior to the beginning of construction	Document results of evaluation in environmental document.

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Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP CULT-1D (cont)			criteria of CEQA Guidelines §15064.5. This evaluation may require additional research, including subsurface testing, If the resource does not qualify, or if no resource is present within the project APE, this will be reported in the environmental document and no further mitigation will be required unless there is a discovery during construction.	g		8	
LRDP CULT-1E	For projects where a significant cultural resource could be affected	All	If a resource within the project's area of potential effects is determined to qualify as an historical resource or a unique archaeological resource (as defined by CEQA), the Campus shall consult with the qualified archaeologist to consider means of avoiding or reducing ground disturbance within the site boundaries, including minor modifications of building footprint, landscape modification, the placement of protective fill, or other means that will permit avoidance or substantial preservation in place of the resource.	If significant resource is present, in consultation with archaeologist, incorporate avoidance or preservation measures into final project design.	PP&C	Prior to final design approval	Verify, and document in project file, that avoidance measures have been incorporated into the project's final design.
LRDP CULT-1F	For projects where impacts to a significant cultural resources cannot be avoided	All	If avoidance or substantial preservation in place is not possible for an archaeological site that has been determined to meet CEQA significance criteria, the Campus shall retain a qualified archaeologist who, in consultation with the Campus, shall prepare a research design, and plan and conduct archaeological data recovery and monitoring that will capture those categories of data for which the site is significant, prior to or during	Qualified archaeologist will prepare research design, carry out archaeological data recovery, monitoring, reporting and curation, as described.	PP&C	Prior to and during construction	Verify that data recovery was conducted and reports and collections curated; include technical reports in project file.

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Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP CULT-1F (cont)			development of the site. The Campus shall also ensure that appropriate technical analyses are performed, and a full written report prepared and filed with the California Historical Resources Information System, and also shall provide for the permanent curation of recovered materials.				
LRDP CULT-1G	All projects	All	If an archaeological resource is discovered during construction (whether or not an archaeologist is present), all soil disturbing work within 100 feet of the find shall cease. The Campus shall contact a qualified archaeologist to provide and implement a plan for survey, subsurface investigation as needed to define the extent of the deposit, and assessment of the remainder of the site within the project area to determine whether the resource is significant and would be affected by the project. LRDP Mitigation CULT-1F shall also be implemented.	Include stop-work requirement in bid documents.  In the event of a find, a qualified archaeologist will assess to determine extent and significance and will carry out data recovery as described in Mitigation CULT -1F.	PP&C PP&C	During construction  During construction	Confirm that stop work requirement is included in contract specification.  See Mitigation CULT-IF.
LRDP CULT-1H	For projects where is determined that impacts cannot be mitigated though CULT-1A-1G, above	All	If, in the opinion of the qualified archaeologist and in light of the data available, the significance of the site is such that data recovery cannot capture the values that qualify the site for inclusion on the CRHR, the campus shall reconsider project plans in light of the high value of the resource, and implement more substantial modifications to the proposed project that would allow the site to be	If qualified archaeologist advises that site is highly significant and impacts cannot be mitigated adequately through measures described above, consult to identify impact avoidance measures such as major project modification, relocation or abandonment and	PP&C	During project design and environmental review	Confirm that consultation has been conducted and project has been modified to avoid impacts or that campus has implemented Mitigation CULT-3A; document in project file.

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Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP CULT-1H (cont)			preserved intact, such as project redesign, placement of fill, or project relocation or abandonment. If no such measures are feasible, the Campus shall implement LRDP Mitigation CULT-3A	can be carried out.			
LRDP CULT-2A	All projects	Historic District	For projects within Cowell Ranch Historic District over-lay, the Campus shall implement LRDP Mitigations AES-4A and AES-4B.	See Mitigations AES-4A and -4B.			
LRDP CULT-2B	All projects that would affect any structure 50 years of age or older	All	As early as possible in the project planning process, the Campus shall define the project's area of potential effects (APE) for historic structures. The Campus shall determine the potential for the project to result in impacts to or alteration of historic structures, based on the extent of site and building modifications anticipated for the proposed project.	Consult with architectural historian (as needed) to define project's APE for historic structures based on project footprint and potential visual effects on historic buildings in project vicinity. Review campus database to determine whether any structure within the defined area is more than 50 years old.	PP&C	During project planning	Document project APE including any determination of presence of historic structures.
LRDP CULT-2C	All projects altering or otherwise affecting building or structure 50 years or older	All	Before altering or otherwise affecting a building or structure 50 years old or older that has not been evaluated previously, the Campus shall retain a qualified architectural historian to record it at professional standards, and assess its significance under CEQA Guidelines Section 15064.5. The evaluation process shall include the development of appropriate historical background research as context for the assessment of the significance of the	Consult with architectural historian to document and assess CRHR eligibility of structures of 50 years old within project APE.	PP&C	During project planning	Document results of assessment; include historic documentation in project file.

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Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP CULT-2C (cont)			structure in the history of the University system, the campus, and the region. For historic buildings, structures or features that do not meet the CEQA criteria for historical resource, no further mitigation is required and the impact is less than significant.				
LRDP CULT-2D	Any project altering or otherwise affecting building or structure 50 years or older that is CRHR- eligible	All	For a building or structure that qualifies for listing on the CRHR, the Campus shall consult with the architectural historian to consider measures that would enable the project to avoid direct or indirect impacts to the building or structure. These could include preserving a building on the margin of the project site, using it "as is," or other measures that would not alter the building.	Consult with architectural historian to identify avoidance measures.	PP&C	During project planning	Document avoidance measures included in project, in project file.
LRDP CULT-2E	All projects altering or adversely affecting building or structure 50 years or older that is CRHR- eligible	All	If the project cannot avoid modifications to a significant building or structure, the Campus shall ensure that documentation and treatment shall be carried out by a qualified architectural historian, as described below:  • If the building or structure can be preserved on site, but remodeling, renovation or other alterations are required, this work shall be conducted in compliance with the "Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating,	Qualified architectural historian will carry out appropriate documentation and treatment as detailed in mitigation measure.	PP&C	Prior to building or structure alterations or demolition	Confirm that documentation has been included in project file and campus cultural resources database.

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Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP CULT-2E (cont)			Restoring, and Reconstructing Historic Buildings" (Weeks and Grimmer 1995).  If a significant historic building or structure is proposed for major alteration or renovation, or to be moved and/or demolished, the campus shall ensure that a qualified architectural historian thoroughly documents the building and associated landscaping and setting.  Documentation shall include still and video photography and a written documentary record of the building to the standards of the Historic American Building Survey (HABS) or Historic American Engineering Record (HAER), including accurate scaled mapping, architectural descriptions, and scaled architectural plans, if available. A copy of the record shall be deposited in the McHenry Library Special Collections, and with the California Historical Resources Information System. The record shall be accompanied by a report containing site-specific history and appropriate contextual information. This information shall be gathered through site specific and comparative archival research, and oral history collection as appropriate.  If preservation and reuse at the site are not feasible, the historical	Consider feasibility of moving, preserving and reusing any significant historic building that would otherwise be destroyed. Carry out the move where feasible.	PP&C	During project planning and prior to demolition	Document feasibility assessment in project file.

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Mitigation Number LRDP CULT-2E	Applicability/ Project Type	Location	Mitigation Measure building shall be documented as described in item (ii) and, when	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
(cont)			physically and financially feasible, be moved and preserved or reused.				
LRDP CULT-2F	Where a project would affect a highly significant historic building	All	If, in the opinion of the qualified architectural historian, the nature and significance of the building is such that its demolition or destruction cannot be fully mitigated through documentation, the Campus shall reconsider project plans in light of the high value of the resource, and implement more substantial modifications to the proposed project that would allow the structure to be preserved intact. These could include project redesign, relocation or abandonment. If no such measures are feasible, the Campus shall implement LRDP Mitigation CULT-3B.	If qualified architectural historian advises that site is highly significant and impacts cannot be mitigated adequately through measures described above, consult to identify impact avoidance measures such as major project modification, relocation or abandonment and determine whether these can be carried out.	PP&C	During project planning and prior to construction	Document consideration and/or implementation of avoidance or project modification measures in project file.
LRDP CULT-3A	All projects affecting significant archaeological sites	All	If a significant archaeological resource cannot be preserved intact, before the property is damaged or destroyed, the Campus shall ensure that the resource is appropriately documented by implementing a program of research-directed data recovery, consistent with LRDP Mitigation CULT-1F.	See Mitigation CULT-1F.	PP&C	Prior to or during construction	See Mitigation CULT-1F.

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<sup>2.</sup> AMMR- Annual Mitigation Monitoring Report

Table 4-1 2005 LRDP Mitigation Monitoring Program

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LRDP CULT-3B	All projects affecting known historic resources or unique archaeological resources	All	If a significant historic resource or unique archaeological resource cannot be preserved intact, before the property is damaged or destroyed the Campus shall ensure that the important information represented by the resource is preserved, by implementing a program of documentation as described in LRDP Mitigation CULT-2D.	See Mitigation CULT-2D.	PP&C	Prior to or during construction	See Mitigation CULT-2D.
LRDP CULT-4A	All projects involving ground disturbance	All	The Campus shall implement LRDP Mitigations CULT-1A through CULT- 1H to minimize the potential for disturbance or destruction of human remains in an archaeological context and to preserve them in place, if feasible.	See Mitigations CULT-1A through -1H.	PP&C	Planning, prior to and during construction	See Mitigations CULT-1A through - 1H.
LRDP CULT-4B	Projects involving ground disturbance within Native American archaeological site	All	The Campus shall provide a representative of the local Native American community an opportunity to monitor any excavation (including archaeological excavation) within the boundaries of a known Native American archaeological site.	Consult with Native American Heritage Commission or local Native American groups to identify Native American archaeological monitor and provide opportunity to monitor any excavation within a known Native American site.	PP&C	During any ground disturbance or excavation for construction	Document in project files that Native American community was offered opportunity to monitor excavation.
LRDP CULT-4C	Project involving excavation in which human bone or suspected human bone is uncovered	All	In the event of a discovery on campus of human bone, suspected human bone, or a burial, the Campus shall ensure that all excavation in the vicinity halts immediately and the area of the find is protected until a qualified archaeologist determines whether the bone is human. If the qualified archaeologist	Halt excavation and follow notification procedures described in the event of a discovery of suspected human bone.	PP&C	Throughout construction	Document in project file that excavation was halted and describe notifications carried out and their result.

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LRDP CULT-4C (cont)			determines the bone is human, or if a qualified archaeologist is not present, the Campus will notify the Santa Cruz County Coroner of the find and protect the find without further disturbance until the Coroner has made a finding relative to PRC 5097 procedures. If it is determined that the find is of Native American origin, the Campus will comply with the provisions of PRC \$5097.98 regarding identification and involvement of the Native American Most Likely Descendant (MLD).				
LRDP CULT-4D	For any project in which human remains are uncovered	All	If human remains cannot be left in place, the Campus shall ensure that the qualified archaeologist and the MLD are provided an opportunity to confer on archaeological treatment of human remains, and that appropriate studies, as identified through this consultation, are carried out. The Campus shall provide results of all such for local Native American involvement in any interpretative reporting. As required by the provisions of the California Native American Graves Protection and Repatriation Act (NAGPRA), the Campus shall ensure that human remains and associated artifacts recovered from campus projects on state lands are repatriated to the appropriate local tribal group if requested, provided that the appropriate group can be identified through California NAGPRA procedures.	Confer with archaeologist and MLD to determine and implement appropriate treatment of human remains.  Provide Native American community opportunity to be involved in interpretation and reporting.  CA NAGPRA procedures to be determined, subject to State's development of procedures.	PP&C	During site preparation and construction	Document results of consultation and include technical and interpretive reports in project file.

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LRDP CULT-5A	All projects involving ground disturbance	North campus & 2300 Delaware	During project planning, the Project Manager shall consult the most recent Campus Soils and Geology map to determine whether the proposed project is underlain by a formation that is known to be sensitive for paleontological resources.	Document location of project relative to Santa Margarita Formation (on north campus) or Santa Cruz Mudstone (at 2300 Delaware).	PP&C	Planning	Include technical report of findings in project file.
LRDP CULT-5B	All projects on sites underlain by paleontologically sensitive formations	North campus & 2300 Delaware	If the project site is underlain by paleontologically sensitive formations, the Campus shall retain a qualified paleontologist to determine, through assessment of results of geotechnical investigations or site inspection, whether proposed excavation or grading has the potential to encounter the members of sensitive formations that are fossiliferous, and if so, to develop a paleontological monitoring	Conduct paleontological assessment. If project could encounter fossiliferous members of these formations:  1) Incorporate monitoring and data recovery plan into project; and	PP&C PP&C	Project design  Project design	Document results of assessment in project file.  Before project goes out to bid, confirm monitoring and data recovery plan is incorporated into
			and data recovery plan and implement it during the construction period as appropriate. In addition, the paleontologist shall conduct a construction crew education session regarding paleontological potential and significance, and of stop-work provisions in the event of a discovery.	2) Conduct construction crew training.	PP&C	At the start of earth-moving activities	project.  Confirm that training was conducted.
LRDP CULT-5C	Depends on results of CULT- 5B	North campus & 2300 Delaware	In the event of a discovery of a paleontological resource on campus, work within 50 feet of the find shall halt until a qualified paleontologist has examined and assessed the find and, if the resource is determined to be a unique paleontological resource, the resource is recovered. The Campus	Include stop-work provision in construction contract.  In the event of a discovery, consult with qualified paleontologist to determine appropriate documentation, analysis	PP&C PP&C	Before project goes out to bid  During construction	Confirm provision is in bid documents.  Document discoveries on campus cultural resources database; retain tech report in project file.

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Mitigation Number LRDP CULT-5C (cont)	Applicability/ Project Type	Location	Mitigation Measure shall ensure that all finds are adequately documented, analyzed, and curated at an appropriate institution.	Mitigation Procedure and curation procedures.	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP CULT-5D	Depends on results of CULT- 5A through -5C	North campus & 2300 Delaware	In the event that a proposed project would result in impacts to a unique paleontological resource, the project planning team shall work together to reduce impacts to the find through design and construction modifications, to the extent feasible.	Project team shall consult with paleontologist to identify potential project modification or construction techniques to reduce impacts.	PP&C	During project design	Document efforts to modify project or construction techniques to reduce impacts to resource in project file.
LRDP CULT-6	General	Empire Cave	The Campus shall implement LRDP Mitigations BIO-8A and –8B.	See Mitigations BIO-8A and 8B.			
LRDP GEO-1	All projects	All	Where existing information is not adequate, detailed geotechnical studies shall be performed for areas that will support buildings or foundations. Recommendations of the geotechnical investigations will be incorporated into project design.	Conduct detailed geotechnical study if as specified and incorporate recommendations into project design.	PP&C	During project design	Confirm study has been conducted. Confirm that recommendations are incorporated into design and document in project file.
LRDP HAZ-2	General	NA	The Campus will enhance its hazardous waste minimization program by (1) monitoring chemical purchases and use; and 2) maintaining a hazardous waste website to provide campus waste generators with the latest information on hazardous waste requirements; recycling, treatment, and disposal options; and waste minimization techniques.	EH&S monitor chemical purchase and use and report annually. Maintain hazardous waste website and train potential users how to utilize it.	EH&S/ Purchasing EH&S	Ongoing	EH&S will provide accounting annually to PP&C for AMMR.  Document training sessions and list topics covered on website. Report in AMMR.

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LRDP HAZ-7	Projects with demolition or renovation	All	The Campus shall survey buildings for potential contamination before any demolition or renovation work is performed. If contamination is discovered, appropriate remediation will be completed.	Project manager notify EH&S of demolition or renovation. EH&S survey buildings as needed to identify potential lead- and/or asbestos-containing building materials.	PP&C/EH&S	During project planning and design	Document survey results in project file.
				EH&S identify any necessary notifications or special construction procedures. PP&C include notification and procedures in bid documents.	EH&S/ PP&C	Prior to construction	Confirm that bid documents include required notification and procedures.
				EH&S oversee required sampling and cleanup.	EH&S	During construction and prior to conclusion of construction	Document in project file that cleanup has been completed.
LRDP HAZ-9A	All projects	All	The Campus shall continue to include the following requirements in its Campus Standards and implement them under the 2005 LRDP:  Construction work shall be conducted so as to ensure the least possible obstruction to traffic.	Revise Campus Standards as needed to include requirements listed in mitigation measure.	PP&C	Within one year of approval of LRDP	Confirm that requirements are in Campus Standards and document in AMMR.
			Contractors shall notify the University's Representative at least two weeks before any road closure.				
			When paths, lanes, or roadways are blocked, detour signs must be installed to clearly designate an alternate route. Fire hydrants shall be kept accessible to fire fighting				

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LRDP HAZ-9A (cont)			equipment at all times. To ensure adequate access for emergency vehicles when construction projects would result in temporary lane or roadway closures, Physical Plant and Physical Planning and Construction shall continue to require that construction and maintenance project managers notify campus police and fire departments and the campus dispatchers of the closures and alternative travel routes.				
LRDP HAZ-9B	General	NA	The Campus shall test the effectiveness provisions of the Emergency Operation Plan (EOP) annually, and update as necessary.	UC Santa Cruz Fire Dept will test EOP annually and updates as necessary.	UCSC Fire Department	Annually	Annually, by June 30, confirm that EOP has been tested and updated.
LRDP HAZ-9C	All North campus & 2300 Delaware	North campus & 2300 Delaware	Before the beginning of the construction of the north campus loop road, the Campus shall expand existing main campus Emergency Operations Plan (EOP) to cover new development areas. In addition, the Campus will develop a site-specific EOP prior to occupancy of Building C at 2300 Delaware Avenue.	Expand main campus EOP.  Update site-specific EOP for 2300 Delaware Avenue Bldg C.	UCSC Fire Department  UCSC Fire Department	Before beginning construction of north loop road  Prior to occupancy of 2300 Delaware, Bldg C	Confirm that EOP has been expanded.  Confirm that site-specific EOP has been developed and report in EOP.
LRDP HAZ-9D	First development on north campus	North campus	Any new development project on the north campus shall be provided with a secondary emergency egress route prior to occupancy of the development.	Plan, design and construct secondary emergency egress route before or in conjunction with new development on north campus.	PP&C/ UCSC Fire Marshall	Before first occupancy of north campus development	Confirm secondary egress route has been completed.

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LRDP HAZ-10A	General	NA	UC Santa Cruz Fire Department will continue to conduct annual inspections of all residential and laboratory buildings and biennial inspections of all other buildings.	Conduct inspections as specified in mitigation.	UCSC Fire Department	Annually and Biennial	Annually, by June 30, confirm that inspections have been conducted; report in AMMR.
LRDP HAZ-10B	General	NA	Prior to beginning north campus construction, UC Santa Cruz will develop a new Vegetation Management Plan aimed at preventing wildland fires in the north campus. This Vegetation Management Plan will include provisions governing vegetation management and will specify pruning guidelines and provide a minimum of 30 feet of clearance between existing vegetation and buildings. The Vegetation Management Plan will include a rigorous inspection schedule of the interior and exterior of buildings with particular focus on ensuring that surrounding vegetation does not endanger buildings. The Plan will ensure that fire hydrants are adequately spaced and accessible and that fire roads are maintained and accessible. The Plan will also address limiting the risk of fires in the undeveloped regions on the campus.	Develop Vegetation Management Plan as specified.  Implement Plan and report annually to PP&C.	Physical Plant/ UCSC Fire Department  Physical Plant & UCSC Fire Department	Before beginning construction on north campus development  Ongoing after first occupancy of north campus development	Confirm that plan is complete and document in project file.  Report implementation of plan in AMMR.
LRDP HAZ-10C	General	NA	The Campus shall provide wildland fire prevention signage in the north and upper campus areas in conjunction with the new development.	Provide signage.	Physical Plant	Before occupancy of north campus development	Confirm that signage is in place.

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LRDP HAZ-10D	All projects	North campus	Building component protection as prescribed in the International Uniform Wildland Interface Code (UWIC) shall be required where appropriate as determined by the Campus Fire Marshal.	Review building design to determine whether to require UWIC protection, and impose requirement as needed.	UCSC Fire Marshal	During final design	Confirm Fire Marshall review and document in project file.
LRDP HAZ-11	Projects proposed by non-UC entities, involving wet lab space	All	For projects proposed by non-UC Santa Cruz entities on campus that involve laboratory space, non-UC Santa Cruz entities shall be required, through contracts and agreements, to implement programs and controls that provide the same level of protection required of campus laboratories and departments. The following project-specific mitigation measures would be implemented for non-UC Santa Cruz tenants:	Consult with EH&S to determine appropriate language for lease agreement or other contract with tenant.	BAS and Planning and Budget	Before contract or agreement is signed by University.	Confirm requirements are in lease agreement and consultation with EH&S.
			Non-UC Santa Cruz entities shall submit the qualifications of designated laboratory directors to UC Santa Cruz EH&S prior to commencing laboratory operations. Such documentation shall be in the form of educational and professional qualifications/experience.  Non-UC entities shall submit certification of compliance with NIH biosafety principles to the UC Santa Cruz EH&S prior to commencing on-site research. Non-UC entities shall submit copies of completed medical waste management plans, biosafety management plans, inventories of infectious select	Document inclusion of these requirements in contract or agreement.	BAS, Planning and Budget, and EH&S	Before contract or agreement renewal is signed	Confirm requirements are in lease agreement.

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LRDP	9 11		agents, applicable permits and	8		3	
HAZ-11			updates.				
(cont)			If hazardous material quantities are				
			proposed to be increased above				
			applicable threshold quantities as				
			defined in California Code of				
			Regulations, Title 19, Division 2,				
			Chapter 4.5, non-UC entities shall				
			implement a Risk Management				
			Plan/California Accidental Release				
			Prevention Plan (RMP/CalARP),				
			which discusses the handling and				
			storage of acutely hazardous				
			materials on site. The RMP/CalARP				
			shall be approved by the CUPA and				
			filed with the UC Santa Cruz EH&S				
			prior to commencing proposed				
			operations.				
			<ul> <li>Non-UC entities shall submit</li> </ul>				
			certification to the UC Santa Cruz				
			EH&S to verify that applicable				
			requirements for handling and				
			disposal of hazardous wastes have				
			been met prior to commencing on-				
			site research. Non-UC entities shall				
			submit copies of management plans				
			for handling and disposal of				
			hazardous wastes, and written				
			verification of contracts with				
			licensed waste disposal firms.				
			Non-UC entities shall provide to the				
			UC Santa Cruz EH&S copies of all				
			required environmental reports to				
			local, state, and federal				
			environmental and safety regulators.				

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LRDP HYD-2A	Projects less than 1 acre	All	For all construction projects less than one acre in area, the Campus shall continue to require the use of construction site controls and best management practices in compliance with the campus draft Storm Water	Update Campus Standards Handbook as needed.	PP&C	Within one year of approval of LRDP	Confirm Campus Standards are consistent with mitigation requirements.
			Management Program, the campus Erosion Control Standards, and the Site Requirements for Erosion Control and Drainage in the Campus Standards Handbook.	Require contractors to comply with Campus Standards as a contract condition.	PP&C	Ongoing, beginning at LRDP approval	Review standard contract terms to ensure compliance; document in AMMR.
LRDP HYD-2B	Projects on hillsides >10% slope	All	No grading shall be conducted on hillsides (sites with slopes greater than 10 percent) during the wet season (October 1 through May 31) unless controls that prevent sediment from leaving the site are implemented. Erosion control measures, such as erosion control blankets, seeding or other stabilizing mechanisms shall be incorporated into the project erosion control plan or SWPPP and applied to graded hillside prior to predicted storm events.	Revise Campus Standards to include requirement.  Review/approve erosion control plan.	PP&C PP&C	Within one year of approval of LRDP  Before grading begins or before October 1, whichever is later	Confirm Campus Standards are consistent with mitigation requirement.  Confirm erosion control plan meets mitigation requirements and document in project file.
LRDP HYD-3A	General	NA	The Campus shall install additional signs and expand the public education program to inform and educate the campus population about the importance of staying on paved roads and approved paths to prevent vegetation disturbance and soil erosion.	Install additional signs at entrances to undesignated trails.  Expand educational program through development of map annotations and other materials.	Physical Plant PP&C	Within one year of approval of LRDP  Within one year of approval of LRDP	Report on sign installation and educational program in annual mitigation report.  Confirm that map and program have been updated and document in AMMR.

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General & New road construction	All	The Campus shall implement control measures to reduce erosion along new and existing unpaved fire roads, including but not limited to water bars	For existing roads, develop and implement control measures.	Physical Plant	Ongoing	Report on implementation of control measures annually.
		to redirect flow off the road and flow dispersion of runoff from roads.	For new roads, include erosion control features in design.	PP&C	Before project design approval	Confirm during plan review and document in project file.
All projects creating new impervious surface	All	Each new capital project proposed under the 2005 LRDP that creates new impervious surface shall include design measures to ensure that post-development peak flows from 2-, 5- and 10-year storms do not exceed the 2-, 5-, and 10-year pre-development peak flows and that post-development peak flows from a 25-year storm do not exceed the pre-development peak flow from a 10-year storm.	Project design to meet standards for peak flow.	PP&C	Before project design approval	Confirm during plan review.
Projects increasing impervious surface.	All	The Campus shall require each new capital project to include design measures to minimize, to the maximum extent practicable, the increase in the volume of storm water runoff discharged from the project site to sinkholes or natural drainages. These design measures shall include features that maximize infiltration and dissipation of runoff, preferably near the area where new runoff is generated, and may include, but will not be limited to: vegetated swales, bioretention areas, infiltration trenches and basins, level spreaders, permeable pavement,	Project design to include measures to minimize increase in runoff volume.  Develop protocol for design consultants and revise Campus Standards as needed.	PP&C PP&C	Before project design approval  Within one year of LRDP approval	Confirm that protocol has been developed and Campus Standards are consistent with mitigation.  Confirm during plan review; document in project file.
	Project Type  General & New road construction  All projects creating new impervious surface  Projects increasing impervious	Project Type General & New road construction  All projects creating new impervious surface  Projects increasing impervious  All	General & New road construction  All The Campus shall implement control measures to reduce erosion along new and existing unpaved fire roads, including but not limited to water bars to redirect flow off the road and flow dispersion of runoff from roads.  All projects creating new impervious surface  All Each new capital project proposed under the 2005 LRDP that creates new impervious surface shall include design measures to ensure that post-development peak flows from 2-, 5-, and 10-year storms do not exceed the 2-, 5-, and 10-year storms do not exceed the pre-development peak flows from a 25-year storm do not exceed the pre-development peak flow from a 10-year storm.  Projects increasing impervious surface.  All The Campus shall require each new capital project to include design measures to minimize, to the maximum extent practicable, the increase in the volume of storm water runoff discharged from the project site to sinkholes or natural drainages. These design measures shall include features that maximize infiltration and dissipation of runoff, preferably near the area where new runoff is generated, and may include, but will not be limited to: vegetated swales, bioretention areas, infiltration trenches and basins, level	General & New road construction  All The Campus shall implement control measures to reduce erosion along new and existing unpaved fire roads, including but not limited to water bars to redirect flow off the road and flow dispersion of runoff from roads.  All projects creating new impervious surface and 10-year storms do not exceed the 2-, 5-, and 10-year storms do not exceed the pre-development peak flows from a 25-year storm do not exceed the pre-development peak flows increasing impervious surface.  All The Campus shall require each new capital project to include design measures to minimize, to the maximum extent practicable, the increase in the volume of storm water runoff discharged from the project site to sinkholes or natural drainages. These design measures shall include features that maximize infiltration and dissipation of runoff, preferably near the area where new runoff is generated, and may include, but will not be limited to: vegetated swales, bioretention areas, infiltration trenches and basins, level spreaders, permeable pavement,	General & New roads. All The Campus shall implement control measures to reduce erosion along new and existing unpaved fire roads, including but not limited to water bars to redirect flow off the road and flow dispersion of runoff from roads.  All projects creating new impervious surface  All Description of the road and flow dispersion of runoff from roads.  All projects creating new impervious under the 2005 LRDP that creates new impervious under the 2005 LRDP that creates new impervious surface where the project standards for peak flow.  All Description of the road and flow design measures to ensure that post-development peak flows from 2-, 5-, and 10-year pre-development peak flow from a 10-year storm do not exceed the pre-development peak flow from a 10-year storm do not exceed the pre-development peak flow from a 10-year storm do not exceed the pre-development peak flow from a 10-year storm do not exceed the pre-development peak flow from a 10-year storm do not exceed the pre-development peak flow from a 10-year storm do not exceed the pre-development peak flow from a 10-year storm do not exceed the pre-development peak flow from a 10-year storm do not exceed the pre-development peak flow from a 10-year storm.  Projects increasing impervious surface.  All The Campus shall require each new capital project to include design measures to minimize, to the maximum extent practicable, the increase in the volume of storm water runoff discharged from the project site to sinkholes or natural drainages. These design measures shall include features that maximize infiltration and dissipation of runoff, preferably near the area where new runoff is generated, and may include, but will not be limited to: vegetated swales, bioretention areas, infiltration trenches and basins, level spreaders, permeable pavement,	Project Type

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Table 4-1 2005 LRDP Mitigation Monitoring Program

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LRDP HYD-3D (cont)			impervious surfaces, storage and re-use of roof runoff, and green roofs. Within one year following approval of the 2005 LRDP, the Campus shall provide a protocol for design consultants to use in demonstrating that measures to reduce runoff are included in the project design to the maximum extent practicable.				
LRDP HYD-3E	All projects	All	Design and planning for new pathways and bikeways shall include fencing, signage and/or other design features to control pedestrian/bicycle circulation and minimize the potential for shortcuts. Bridges shall be provided where new pathways cross drainages that become inundated during the rainy season.	Project design to include measures to control pedestrian and bicycle circulation.	PP&C	During planning & design	Document design features to control pedestrians and bicycles.
LRDP HYD-5A	All projects	North campus	The Campus shall implement LRDP Mitigation HYD-3D.	Refer to Mitigation HYD-3D.			
LRDP HYD-5B	Projects involving construction on karst, where pressure grouting is being considered	Central and lower campus	For projects involving construction on karst, if: (a) groundwater is encountered beneath the building site during the geotechnical investigation, and (b) the proposed foundation type would require pressure grouting, the Campus will follow the procedures outlined below:	1) Determine whether groundwater has been encountered during geotechnical study; and 2) Determine if pressure grouting would be required,	PP&C	Before project design approval	Confirm that studies have been conducted and, if potential impact has been identified, that plans have been revised to avoid impact.
			Perform a dye tracing study to determine if there is a potential for pressure grouting to affect water quality in springs and seeps around the UC Santa Cruz campus. If a potential impact is indicated, alternative building foundation plans	a) Conduct dye tracing study results or, b) Conduct hydrogeological evaluation.  3) Revise foundation			

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LRDP HYD-5B (cont)			will be considered.  • As an alternative, the Campus may conduct a preliminary hydrogeological study to evaluate whether the groundwater zone encountered during the geotechnical investigation is hydraulically connected to the karst aquifer. If the hydrogeological study indicates that the groundwater zone is hydraulically independent of the karst aquifer, such that there is no potential for grout injected during construction to affect karst water quality, a dye tracing study need not be performed. If results of the hydrogeological study indicate hydraulic connectivity between the groundwater encountered beneath the site and the karst aquifer, the Campus shall conduct a dye tracing study as described above.	plans.			
LRDP HYD-5C	General	NA	If the existing or a new groundwater well is used the Campus shall perform monitoring of water levels within that well and any adjacent wells, and monitoring of those springs in the campus vicinity shown to be connected to the well with a dye tracing study or other applicable testing method for the duration of groundwater pumping to ascertain whether there is any long-term decline in water levels or spring discharge. If monitoring of water levels	Retain a qualified hydrogeologist to develop monitoring program and interpret results.  If new well is proposed, conduct hydrogeological study, including pump test, to evaluate potential impacts.	PP&C PP&C	Before pumping begins  Before pumping begins  As specified in	Confirm that monitoring program has been developed.  Document a hydrogeological study has been conducted for new well.
			and springs indicates that campus use	During pumping, monitor according to program	PP&C	monitoring	Document results of

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LRDP HYD-5C (cont)			of groundwater is contributing to a net deficit in aquifer volume, as indicated by a substantial decrease in average water levels in any monitored wells or a substantial reduction of flows in monitored springs, the Campus will terminate or reduce its use of groundwater from the aquifer. The average water levels and flows in springs will be defined through a statistical analysis of historic data, with consideration of associated seasonal rainfall and seasonal variations in spring discharge flow rates.	developed by hydrogeologist.  If substantial decrease in water levels or reduction in spring discharge is observed, terminate or reduce pumping.	PP&C	program  During pumping	monitoring.  Confirm that pumping has been terminated or reduced.
LRDP NOIS-1	All projects	All	Prior to initiation of construction of a specific development project, the Campus shall approve a construction noise mitigation program that shall be implemented for each construction project. This shall include but not be limited to the following:  • Construction equipment used on campus is properly maintained and has been outfitted with feasible noise-reduction devices to minimize construction-generated noise.  • Laydown and construction vehicle staging areas shall be located at least 100 feet away from noise-sensitive land uses as feasible.  • Stationary noise sources such as generators or pumps shall be located at least 100 feet away from noise-sensitive land uses as feasible.  • Notices of the dates and hours of	Revise Campus Standards as needed to include noise control requirements.  Develop noise mitigation plan for each construction project.  Implement noise mitigation program as described.	PP&C PP&C	Within one year after 2005 LRDP has been approved  Before construction begins  During construction	Confirm that Campus Standards include noise control requirements.  Confirm in project file that noise mitigation plan has been developed.  Confirm that noise mitigations have been implemented.

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LRDP NOIS-1 (cont)	3		anticipated construction shall be posted in academic, administrative, and residential buildings within 100 feet of construction noise sources at least a week before the start of each construction project.  • Loud construction activity (i.e.,	<b>S</b>	,	3	
			construction activity such as jack hammering, concrete sawing, asphalt removal, and large-scale grading operations) within 100 feet of a residential or academic building shall not be scheduled during finals week.				
			Loud construction activity as described above within 100 feet of an academic or residential use shall, to the extent feasible, be scheduled during holidays, Thanksgiving break, Christmas break, Spring break, or Summer break.				
			Loud construction activity within 100 feet of a residential building shall be restricted to the hours between 7:30 AM and 7:30 PM, Monday through Saturday.				
			Loud construction activity within 100 feet of an academic building shall be scheduled to the extent feasible on weekends.				

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LRDP NOIS-2	General	NA	Campus Standards shall be amended to include a requirement to be imposed on all campus contracts that only Citydesignated truck routes shall be used for contractor truck trips accessing the campus.	Revise Campus Standards as specified.	PP&C	Within one year of 2005 LRDP approval	Confirm Campus Standards are consistent with mitigation.
LRDP NOIS-3	All projects	All	For future noise-sensitive land uses such as Family Student Housing and other housing complexes that would be constructed under the 2005 LRDP, building and area layouts shall incorporate noise control as a design feature, as feasible. Noise control features would include increased setbacks, landscaped berms or vegetation screens, and building placement to shield noise-sensitive exterior areas from direct roadway exposures. The Campus may also use other noise attenuation measures such as double-pane windows and insulation to minimize interior noise levels.	Project design to include noise control features.	PP&C	During project design	Confirm during plan review.
LRDP POP-3A	General	NA	The Campus will continue to monitor demand for student housing on an annual basis, and will ensure that a sufficient number of students beds are available on campus, through a combination of new housing construction and temporary modification of existing housing space ("overflow housing"), to accommodate at least 50 percent of undergraduate student enrollment and 25 percent of graduate student enrollment, as demand dictates.	Monitor demand for student housing and ensure that sufficient beds are available to accommodate specified goals.	CUHS	Annually	CUHS annually, by June 30, document demand and occupancy, report in AMMR.

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LRDP POP-3B	General	NA	Within one year following approval of the 2005 LRDP, the Campus will fund and carry out a study to identify ways in which the Campus can collaborate with other large employers, the City of Santa Cruz, and the County of Santa Cruz to assist in providing wider access to available housing for UC employees and affiliates and other community members, through mechanisms such as a jointly-funded housing trust augmented by grants and other funding sources.	Initiate a study to identify collaborative ways for housing availability.	CUHS	Within one year of 2005 LRDP approval	Prepare study.
LRDP POP-3C	General	NA	The Campus will consult with the City and County of Santa Cruz on data needs and potential future joint projects and, within one year following approval of the 2005 LRDP, the Campus will fund and carry out a market analysis of the local housing market, including demand for housing by housing type and other demand factors, costs, vacancy, and occupancy rates, to provide data to assist the City in its	CUHS will consult with City and County regarding market analysis data needs and potential joint project and Campus will fund market analysis.  CUHS repeat process at	CUHS	Within one year of 2005 LRDP approval  At no greater than five years	Document that consultation has taken place and study has been conducted, in AMMR.
			planning activities related to housing needs, to assist the Campus in planning University housing, and to assist in the planning of potential joint projects. The Campus will update this study at no greater than five-year intervals.	five-year intervals.		than five years intervals	consultation has taken place and study has been conducted, in AMMR.
LRDP REC-2A	Projects with family housing	All	The Campus shall ensure that open space, tot lots, and similar facilities for use by families are included in each new family housing development built on the campus under the 2005 LRDP.	Include open space, tot lots and similar facilities in each family housing project design.	PP&C/ Project Architect	During project design	Confirm before project design approval and document in project file.

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LRDP REC-2B	General	NA	The Campus shall implement LRDP Mitigations HYD-3A and HYD-3B.	See Mitigation HYD-3A and -3B.			
LRDP REC-2C	General	NA	To discourage the illegal use of bicycles on trails in Pogonip City Park, the Campus shall: (1) install signage on campus property near entrances to the	Install signs as specified.	Physical Plant	Within one year of LRDP approval	Document sign installation and report in AMMR.
			park indicating that trail users are leaving University property and that bicycles are prohibited on some trails in the park; (2) maintain fencing and signage on University property at the	Annually survey Pogonip– UC common fences and repair damaged fences.	Physical Plant	Annually	Physical Plant will document fence survey and repairs and confirm signs are in place.
			Coolidge Drive lookout as needed to discourage unauthorized access into the park from the University; (3) work with campus and other local outdoor recreation groups to undertake measures to regularly inform and	Conduct outreach to inform and educate trail users about trail caretaking.	Physical Plant	Annually, during Fall Quarter	Annually document educational activities and report in AMMR.
			educate students, faculty and staff about caretaking of the regional trail system and regional open spaces; and (4) revise campus bicycle maps to explicitly identify the park boundary and Pogonip City Park rules regarding bicycle use.	Revise draft Bike Plan map to identify Pogonip boundary.	TAPS	Before completion of Final Bike Plan	Confirm revised map is in Bike Plan and document in AMMR.
LRDP REC-2D	General	NA	The Campus shall coordinate with the City of Santa Cruz's efforts in organizing an annual or semi-annual volunteer trail maintenance day, and shall assist in the recruitment of	Contact City to initiate coordination and organization.	PP&C/ Physical Plant/	Ongoing, semi- annually	Annually, by June 30, confirm that advertising and education were conducted.
			volunteers for these events from the UC Santa Cruz campus through campus advertising and education efforts.	Conduct advertising and other educational activities to recruit volunteers.	Physical Plant	Ongoing	Document and report number of UC Santa Cruz volunteers in AMMR.

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LRDP REC-4	General	NA	The Campus will continue to make campus recreational facilities available to the public, and will provide casual recreation amenities, such as walking paths and picnic tables, that will be available for public use.	OPERS policies and advertising to provide for public access to recreational facilities.	OPERS	Ongoing and annually	Confirm availability and public advertising efforts of facilities and report in AMMR.
LRDP TRA-1	General	NA	The Campus shall monitor the level of service at two intersections (Hagar Drive/McLaughlin Drive and Heller Drive/Meyer Drive) every three years beginning in 2007, and implement intersection improvements or signalization as needed to maintain an acceptable level of service.	Conduct monitoring of intersection traffic.  Implement intersection improvements or signalization.	TAPS/ PP&C	Ongoing beginning in 2007, every three years As warranted, based on monitoring results	Every three years, provide results of monitoring.  Annually, report on status of implementation of improvements that are warranted.
LRDP TRA-2A	General	NA	In addition to any project-level traffic analyses required by CEQA, UC Santa Cruz shall, at intervals of no more than three years or increments of no more than 1,000 students in enrollment growth (whichever occurs first), conduct traffic counts at the identified intersections to determine if the additional traffic generated by Campus growth or a specific project would trigger the need for the specific	As part of project-level environmental review, analyze impact of project on specified intersections.  Conduct traffic counts at identified intersections at intervals of 3 years or 1,000 student increments of enrollment growth.	PP&C/ TAPS PP&C/ TAPS	During environmental review process, prior to project design approval At no greater than 3-year intervals	Include analysis in environmental document.  Document results in AMMR.
			intersection improvements listed in Table 4.14-18, or other improvements to achieve the City's level of service standards. If the analysis indicates that, with the traffic contribution of campus growth or of a specific proposed project, the levels of service would degrade to unacceptable levels, the	Inform City if LOS would degrade to unacceptable levels at any of the identified intersection.  Monitor City's capital improvement program for scheduling of the	TAPS/ Planning & Budget	At conclusion of each study  Ongoing	Confirm that City has been informed and document in AMMR.  Report on status of planned City improvements in

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LRDP TRA-2A			Campus shall inform the City of this conclusion, and contribute its "fair	improvements listed in Table 4.14-17.			AMMR.
(cont)			share" (as defined below) of the cost of the needed improvements.	Negotiate fair share.	TAPS/ Planning and Budget	When City is planning the improvement at affected intersection	Document progress of negotiation in AMMR.
				Pay fair share.	Executive Vice Chancellor	When City makes the improvement	Document status of payment in AMMR.
LRDP TRA-2B	General	NA	UC Santa Cruz shall continue to implement and will expand its existing Transportation Demand Management programs with the objectives of increasing sustainable transportation modes (use of modes other than single-occupant vehicles) above 55 percent during the planning horizon of the 2005 LRDP and reducing peak hour traffic volumes. Potential measures that the	Develop effectiveness matrix for TDM measures for main campus and prioritize measures for implementation.	TAPS	Ongoing, annually	Annually, report on effectiveness of existing TDM measures, implementation status of identified measures, plans for revisions and/or changes to TDM program.
			Campus will consider for achieving this objective are listed in Table 4.14-19.	Conduct modal mix study for main campus.	TAPS	Ongoing, every two years	Report all results in AMMR annually.
				Conduct hose counts at campus intersections.	TAPS	Ongoing, twice a year	Report all results in AMMR annually.
LRDP TRA-3A	General	NA	The Campus shall implement LRDP Mitigation TRA-2B TDM measures to reduce on-campus parking demand associated with single-occupant vehicle commuters and with long-term storage of infrequently used vehicles.	See Mitigation TRA-2B.			

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LRDP TRA-3B	General	NA	The Campus shall monitor on-campus parking utilization rates annually, and will construct additional parking when demand approaches capacity. The Campus will use projected average daytime utilization rate in excess of 90 percent in a given parking zone as a	Define parking zones for consistency with goal of concentrating parking in perimeter of core. Revise zone map and management plan as needed.	TAPS	Within one year of LRDP approval	Annually, by June 30, report results of parking zone revisions; document in AMMR.
			measure of parking capacity.	Conduct annual parking utilization survey on main campus and at 2300 Delaware Avenue.	TAPS	Ongoing, annual	Maintain results in campus files and report completion in AMMR.
				Conduct transportation survey of employees at 2300 Delaware and implement TDM programs as needed.	TAPS	Within 6 months of initial occupancy of Bldg C and annually thereafter	Document measures initiated in project files and report in AMMR.
				Identify potential impacts of proposed development projects on parking and demonstrate how impacts will be mitigated through parking allocation strategies or construction of new spaces.	TAPS/ PP&C	During project- level environmental review	Report in environmental document and AMMR.
				Plan and implement construction of additional parking when demand is projected to approach 90 percent in any given zone.	TAPS/ PP&C	As needed to meet demand	Document demand/supply analysis in campus file and report in AMMR.

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LRDP TRA-3C	General	NA	The Campus shall continue to enhance existing parking management systems to maximize utilization of existing parking capacity. Parking capacity enhancements may include real-time monitoring of lot utilization, changeable message signs identifying available parking spaces, use-based parking permits, zoned parking permits, or other measures.	Evaluate existing systems, need for improvements, and feasibility and effectiveness of potential new or revised measures. Prioritize new measures for implementation. Implement according to priority.	TAPS	Ongoing	Monitor and report on status of implementation of improvements.
LRDP TRA-4A	General	NA	UC Santa Cruz shall monitor campus and Metro transit service and other alternative modes of transportation on an annual basis, to assess the need for improvements in campus circulation to accommodate changes in campusrelated circulation demands.	Monitor transit cycle times through campus.	TAPS	Ongoing, annual	Annually, by June 30, document results of survey.
LRDP TRA-4B	General, and in conjunction with campus circulation improvements.	NA	Based on results of LRDP Mitigation TRA 4A, the Campus shall improve the operational efficiency and capacity of the campus transit system as needed to maintain transit cycle time, and shall work with SCMTD and other agencies	Evaluate potential improvements in campus transit for feasibility, cost and potential effectiveness. Select improvements to implement.	TAPS	Ongoing	Annually, by June 30, document improvements made and effectiveness in improving efficiency and capacity.
			to maintain and improve efficiency and capacity of the public transit system serving University facilities.	Continue working with SCMTD and other agencies to maintain and improve public transit system.	TAPS	Ongoing	Document Campus participation in efforts to improve public transit system.
				Include feasible bus rapid transit (BRT) features in campus circulation improvements and future campus transit hub.	PP&C	During planning and design of circulation improvements	Confirm that BRT is included in design prior to project design approval.

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LRDP TRA-4C	All projects	In vicinity of transit routes	Based on the results of LRDP Mitigation TRA-4A, the Campus shall implement measures, physical and operational improvements, that will ensure that transit travel times between the two most widely-separated colleges does not exceed the time interval between class periods. These measures may include, but are not limited to; channelization of pedestrian crossings, installation of signal-controlled pedestrian crossings, and grade- separated pedestrian crossings where appropriate.	Include measures to control pedestrian crossing points in new development projects in the vicinity of transit routes.	PP&C	During project planning and design	Document planning and design measures related to pedestrian crossings.
LRDP TRA-4D	General	NA	The Campus shall coordinate implementation of needed campus roadway and circulation improvements identified in the 2005 LRDP with the pace of campus development.	Evaluate the need for roadway and circulation improvement.  Notify Planning and Budget of needed improvements.	TAPS	Ongoing  In conjunction with planning for new development	Report on need for improvements.  Document notification to Planning & Budget.
				Include these infrastructure improvements in capital budget.	Planning & Budget	In conjunction with planning for new development	Report on status of major capital improvement program in AMMR.
LRDP TRA-4E	General	NA	Based on the results of LRDP Mitigation TRA-4A, the Campus shall implement the bicycle circulation elements of the 2005 LRDP as needed	Finalize campus bike plan as basis for identifying and prioritizing improvements.	TAPS	Within one year of LRDP approval	Document publication of Final Bike Plan in AMMR.
			to maintain and enhance the effectiveness of bicycles as a transportation mode.	Evaluate the need for bicycle circulation elements and implement improvements according to prioritization in bike plan.	TAPS	Ongoing	Report on status of planning and construction of bicycle improvements.

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LRDP TRA-4F	General	NA	The Campus shall implement integrated transit, bicycle and pedestrian way-finding systems on the main campus.	Develop pedestrian plan for campus.	TAPS	Within two years of LRDP approval	Confirm plan has been completed and report in AMMR.
				Evaluate existing way- finding systems, identify need for improvements, and prioritize improvements for implementation. Implement systems as needed according to priority.	TAPS	Annually	Report on need for improvements and status of implementation in AMMR.
LRDP TRA-5A	General	NA	The Campus shall implement LRDP Mitigations TRA-2A, TRA-2B, TRA- 3B, TRA-3C, and TRA-4A through - 4E.	See Mitigations TRA-2A, TRA-2B, TRA-3B, TRA- 3C, and TRA-4A through - 4E.			
LRDP TRA-5B	General	NA	The Campus shall improve parking management for special events, through appropriate expansion of on-campus parking enforcement at nights and on weekends in order to better manage parking resources to accommodate campus needs.	Review number events and number of people served, and assess problem areas. Identify and implement needed improvements.	TAPS/ Campus police	Ongoing	Report on special event parking management initiatives and status of implementation of improvements.
LRDP TRA-5C	General	NA	The Campus shall provide on-line parking permit sales and way-finding information for visitors in order to reduce back-ups of vehicles at the main entrance kiosk.	On-line parking-permit sales and way-finding information available.	TAPS	Within five years of LRDP approval	Confirm permit sales and way-finding are available online.
LRDP TRA-5D	General	NA	The Campus will continue to promote use of the on-line Campus Events Calendar System to improve coordination between Campus units, and to coordinate traffic and parking	Evaluate effectiveness of Events Calendar system and develop plan for improvements.	Special Events Office & TAPS	Ongoing	Report in AMMR on improvements to Events Calendar system.

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LRDP TRA-5D (cont)			management for traffic producing events. An automatic link will be added to the Calendar System to notify TAPS of the proposed scheduling of any event of over 50 persons in size so that the potential for parking and traffic congestion can be assessed. Upon notification, TAPS will consult with event planners to endeavor, through rescheduling or schedule coordination, to minimize the number of simultaneous full-capacity events and, in particular, those that might occur during traffic peak commute hours. In addition, TAPS and the Event Coordination Committee will collaborate to formulate a Traffic Management Plan, which may include special shuttles from on- or off-campus sites, special designated temporary parking, and other parking and traffic management measures to minimize traffic and parking congestion associated with special events.	Add automatic link to Calendar System, as specified.  Formulate Traffic Management Plan as needed for each event.	TAPS	Within one year of approval of LRDP  As needed for each special event	Report link in AMMR.  Report on plan in AMMR.
LRDP TRA-6A	General	NA	The Campus shall implement LRDP Mitigation TRA-2B.	See Mitigation TRA-2B.			
LRDP TRA-6B	General	NA	UC Santa Cruz shall contribute its fair share of the local cost of the needed improvements as identified by the state at the five significantly affected freeway facilities, based on the cost of the needed improvements less the value of grants, regional, state and federal funds identified for each improvement.	As part of project-level environmental review, analyze impact of project on specified intersections.  If warranted, inform Caltrans and city or county with jurisdiction over intersection (City of Santa	PP&C, TAPS TAPS	During environmental review process Before project design approval	Include analysis in environmental document.  Confirm that Caltrans has been informed that improvement has been triggered.

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<sup>2.</sup> AMMR- Annual Mitigation Monitoring Report

Table 4-1 2005 LRDP Mitigation Monitoring Program

Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP TRA-6B (cont)				Cruz, City of Capitola, or County of Santa Cruz).			
				Negotiate fair share.	Planning & Budget and TAPS	When Caltrans or other jurisdiction is planning the improvement at affected intersections	Report on status of planning for the improvements and on progress of negotiations.
				Pay fair share cost.	Executive Vice Chancellor	When improvement is built	Report on status of payment in AMMR.
LRDP UTIL-4	General	NA	The Campus will continue to improve its recycling and waste reduction programs and identify additional means of reducing waste.	Review programs and identify and implement potential measures to reduce waste and increase the percentage of waste that is recycled.	Physical Plant	Ongoing	Document improvements in recycling and waste reduction programs and percent of campus waste that is recycled.
LRDP UTIL-5	Projects involving construction of new buildings	All	Where feasible, new campus buildings will be added to the Campus Energy Management System. Heating and cooling will be controlled based on time of use of building and outside temperature.	Project design to include addition to Campus Energy Management System. If not added to Campus Energy Management System, provide explanation and document measures that will achieve similar results.	PP&C	Before project design approval	Confirm during plan review.

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Table 4-1 2005 LRDP Mitigation Monitoring Program

Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP UTIL-9A	General	NA	The Campus shall continue to implement and improve all current water conservation strategies to reduce demand for water, including the following:	Continue leak detection and repair program.	Physical Plant	Ongoing	Confirm that program is implemented.
			<ul> <li>Continue the leak detection and repair program.</li> <li>Install an individual water meter in each new employee housing unit to</li> </ul>	Design for new employee housing to include water meters.	PP&C	Before project design approval	Confirm during plan review.
			encourage residential water conservation.  • Install waterless urinals in all new buildings.	Revise Campus Standards to require waterless urinals.	PP&C	Within one year of LRDP approval.	Confirm standards have been revised.
			Require that new contracts for washing machines in student residences be certified by the Consortium on Energy Efficiency 6 to have a water factor of 5.5 or less or meet an equivalent standard. New washing machines purchased for use in athletic facilities shall meet applicable standards for waterefficiency for institutional machines.	Specifications for washing machines to require standard is met.	CUHS	When new contract for washing machines signed Oor lease agreement made	Confirm new machines meet standard.
			Incorporate water-efficient landscaping practices in all new landscape installations. Water-conservative landscaping practices shall include, but will not be limited to the following: use of water-efficient plants, temporary irrigation systems for plant establishment areas where mature plants will be able to survive without regular irrigation, grouping of plants according to their	OPERS washing machines to meet standard.	OPERS	When new machines are purchased	Confirm new machines meet standard and report in AMMR.

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<sup>2.</sup> AMMR- Annual Mitigation Monitoring Report

Table 4-1
2005 LRDP Mitigation Monitoring Program

Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP UTIL-9A (cont)			water requirements, design of planting areas to maximize irrigation pattern efficiency, and mulch covering in planting areas.  To facilitate monitoring of water usage in all new development, the Campus shall: (1) install separate meters on water lines for individual buildings and (2) install meters on irrigation lines	V			
			where one point of connection irrigates 1 acre or more.				
LRDP UTIL-9B	General	NA	As new technologies become available, the Campus shall continue to conduct pilot programs for high-efficiency plumbing fixtures including, but not limited to, dual-flush toilets. If a piloted technology proves to be successful (i.e., the high-efficiency fixtures are effective in water savings and do not require more frequent or expensive maintenance than the existing standard), the Campus shall revise its standards to require use of the fixtures in all new buildings.	Implement pilot programs.  Revise Campus Standards as warranted.	Physical Plant PP&C	Ongoing  Depends on results of pilot programs	Document results of program.  Confirm standards have been revised.
LRDP UTIL-9C	General	NA	Within one year following approval of the 2005 LRDP, the Campus shall implement a water conservation education program for campus residents. This will include but would not be limited to:	Provide residents with information.	CUHS will implement water conservation programs with residents	Within one year of LRDP approval	Confirm information has been provided and document in AMRR.
			Distribution to residents of employee housing of educational materials covering the following topics: basic home water conservation practices,	Designate a staff member as a water conservation educator.	CUHS	Within one year of LRDP approval	Confirm staff member has been designated.

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Table 4-1 2005 LRDP Mitigation Monitoring Program

Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP UTIL-9C (cont)			plumbing retrofits and replacements, and strategies to conserve landscape irrigation.  • Designation of a staff member who will be responsible for developing and implementing a water conservation education and awareness program to reduce water consumption in student residences, dining halls, and student affairs facilities.				
LRDP UTIL-9D	General	NA	Within one year following approval of the 2005 LRDP, the Campus shall consult with the City of Santa Cruz regarding the appropriate scope of and initiate, an engineering audit of campus water use. The audit will assess existing campus water uses, identify options for reducing water consumption, prioritize feasible improvements based on the amount of potential water savings and cost effectiveness, and recommend top priority measures for implementation within the succeeding five years, and lower priority measures for potential subsequent implementation. The audit will include, but will not be limited to the following:  • An inventory of plumbing fixtures in non-housing facilities on campus, which will identify the number and locations of fixtures and identify those that do not meet current campus standards for water	Scope and initiate an audit of campus water use.	PP&C	Within one year of LRDP approval	Confirm audit has been initiated.

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Table 4-1 2005 LRDP Mitigation Monitoring Program

Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP UTIL-9D			plumbing fixtures in student housing, see LRDP Mitigation UTIL-9H.)				
(cont)			An inventory of irrigation systems on the campus, including identification of systems that are not metered, the methods used to control the irrigation schedule, and potential for improvement.				
			An inventory of locations on campus where buildings and irrigation are on the same meter.				
			An analysis of potential water conservation measures for the campus cooling water system.				
			Identification of landscaped areas on campus that have plants that are high water-use.				
LRDP UTIL-9E	General	NA	The Campus shall begin implementation of the top priority recommendations of the water audit conducted under UTIL-9D within one year of completion of the audit and	Begin implementation of priority recommendations from water audit.	Physical Plant, PP&C, and Planning and Budget	Within one year of completion of water audit	Document implementation of priorities identified in water audit.
			complete implementation of the top priority recommendations within five years after completing the audit.	Complete implementation of top priorities.	Physical Plant, PP&C, and Planning and Budget	Within five years of completion of water audit	Document implementation of top priorities identified in water audit.
LRDP UTIL-9F	General	NA	The Campus shall, at five-year intervals during the term of the 2005 LRDP, revisit the results of the water audit conducted under UTIL-9D, consult with the City of Santa Cruz Water	Review water audit results and conduct water audit and study of new technologies as needed.	PP&C	Within one year of approval of 2005 LRDP and every five years thereafter	Confirm review of water audit.
			Department, conduct round table discussions with representatives of	Discuss potential effective water conservation	Physical Plant and	Every five years	Document results of

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Table 4-1 2005 LRDP Mitigation Monitoring Program

Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP UTIL-9F (cont)			relevant campus departments, and conduct additional study of new technologies as needed to identify additional feasible and effective water conservation measures for implementation on the campus during the subsequent five year period. The following are among the measures that shall be considered:  • Adding existing irrigation systems to the campus's central control system.  • Retrofitting existing water meters such that building use and irrigation are separately metered.  • Replacing natural turf on athletic	measures with the City and campus departments that could be studied for implementation.	PP&C	after approval of 2005 LRDP	discussions.
			fields with artificial turf.  • Installing timers on showers in student residences.				
LRDP UTIL-9G	General	NA	Within two years following approval of the 2005 LRDP, the Campus shall initiate a study on feasible measures for utilization of reclaimed water (including rainwater, grey water, cooling tower blow down water and/or recycled water) in new development. Potential uses of reclaimed water include cooling, irrigation, and toilet flushing. The study shall contain a plan to utilize reclaimed water in new development as feasible and effective in water conservation, and shall include an implementation schedule.	Initiate study of reclaimed water as specified.	PP&C	Within two years of LRDP approval	Document initiation of reclaimed water study.

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Table 4-1 2005 LRDP Mitigation Monitoring Program

Mitigation Number	Applicability/ Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
LRDP UTIL-9H	General	NA	Within five years following approval of the 2005 LRDP, the Campus shall complete the retrofit of all plumbing fixtures in student housing not meeting the efficiency standards current in 2005 (1.6 gallons per flush for toilets). The new fixtures installed under the retrofit program shall conform to the campus standard for new buildings current at the time of the retrofit.	Retrofit all student residential plumbing fixtures not meeting efficiency standards.	CUHS	Within five years of LRDP approval	Document that all student housing plumbing fixtures not meeting efficiency standards have been retrofitted.
LRDP UTIL-9I	General	NA	If and when the City implements drought emergency management measures, the University will implement the following measures for the duration of the drought emergency:  • Reduce use of potable water for irrigation on the campus landscape, the CASFS and the Arboretum in accordance with reductions required by the City for similar users.  • Utilize water from the existing	Develop and implement plan to reduce irrigation.	Physical Plant, CUHS, CASFS, Arboretum	When City implements drought emergency management measures	Monitor campus water consumption monthly during drought emergency.
		supply well in Jordan Gulch for non potable uses. The Campus shall implement a program of monitoring flow at downgradient springs during	supply well in Jordan Gulch for non-	Monitor flow from downstream wells and draw water as needed.	Physical Plant	When a well is to brought online	Document in project file.
			Require that residential water use on campus be reduced consistent with the City's target for multifamily residential facilities.	Implement system of incentives, education and rationing as needed to attain target.	CUHS	In the event of a drought	Document in campus file and AMMR.

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<sup>2.</sup> AMMR- Annual Mitigation Monitoring Report

Table 4-2
Infrastructure Improvements Project
Mitigation Monitoring Program

Mitigation Number	Applicability Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
IIP-ALL Mitigation AIR-1	All	All	The Campus shall implement LRDP Mitigation AIR-1. (Apply standard MBUAPCD recommended mitigation measures)	Refer to LRDP MMP, LRDP Mitigation AIR- 1.	PP&C	Before project goes out to bid and throughout construction	Refer to LRDP MMP, LRDP Mitigation AIR-1.
IIP-SW Mitigation BIO-1	Storm water projects	See Table 2-6 in LRDP EIR Volume III	The Campus shall implement LRDP Mitigations BIO-3B through 3D. (Wetlands delineation, avoidance and compensation)	Refer to LRDP MMP, LRDP Mitigations BIO- 3B, -3C and -3D.	PP&C	During project planning and prior to final design approval	Refer to LRDP MMP, LRDP Mitigations BIO- 3B, -3C and -3D.
IIP-SW Mitigation BIO-2	Storm water projects in riparian corridor	See Table 2-6 in LRDP EIR Volume III	The Campus shall implement LRDP Mitigations BIO-4A through BIO-4C. (Riparian vegetation avoidance, compensation, enhancement, restoration and monitoring)	Refer to LRDP MMP, LRDP Mitigation BIO -4A, -4B and -4C.	PP&C	During detailed project design	Refer to LRDP MMP, LRDP Mitigations BIO -4A, -4B and -4C.
IIP-SW Mitigation BIO-5	Storm water projects in Moore Creek drainage	See Table 2-6 in LRDP EIR Volume III	The Campus shall implement LRDP Mitigation BIO-9. (CRLF avoidance, protection and monitoring)	Refer to LRDP MMP, LRDP Mitigation BIO- 9.	PP&C	Prior to and during construction	Refer to LRDP MMP, LRDP Mitigation BIO-9.
IIP-SW Mitigation BIO-6	Any project that would begin construction during nesting season	See Table 2-6 in LRDP EIR Volume III	The Campus shall implement LRDP Mitigation BIO-11. (Nesting birds avoidance and protection)	Refer to LRDP MMP, LRDP Mitigation BIO- 11.	PP&C	Prior to and during construction	Refer to LRDP MMP, LRDP Mitigation BIO-11.

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Table 4-2
Infrastructure Improvements Project
Mitigation Monitoring Program

Mitigation Number	Applicability Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
IIP-SW Mitigation BIO-7	Storm water projects in Moore Creek and Jordan Gulch	See Table 2-6 in LRDP EIR Volume III	The Campus shall implement LRDP Mitigation BIO-12. (Nesting burrowing owls avoidance and protection)	Refer to LRDP MMP, LRDP Mitigation BIO- 12.	PP&C	Prior to and during construction	Refer to LRDP MMP, LRDP Mitigation BIO-12.
IIP-SW Mitigation CULT-1A	All projects with ground-disturbing elements	All	Pursuant to LRDP Mitigation CULT-1E, the Campus shall ensure that the final design of each improvement avoids impact to significant cultural resources, as identified in Table 2-7. The Campus shall also consult confidential cultural resources mapping and the project archaeologist, as needed, to delineate each resource and resource element on construction plans as avoidance areas, and shall implement the resource avoidance measures identified in Draft EIR Table 2-7. Table 2-7 is appended to this measure by reference.	In consultation with archaeologist, incorporate avoidance or preservation measures for identified resources into final project design and construction plans and specs.	PP&C	Prior to final design approval	Confirm that protection or avoidance measures are included in final project design and construction plans and specs; document in project file.
IIP-SW Mitigation CULT-1B	For projects that cannot avoid a resource	All	If the measures identified in Draft EIR Table 2-7, or other measures to avoid impacts to significant resource elements, are not feasible for any of the identified significant cultural resources, the Campus shall implement the research design and data recovery provisions of LRDP	Prepare research design, carry out archaeological data recovery, monitoring, reporting and curation, as described	PP&C	Prior to the beginning of construction	Verify that data recovery was conducted and reports and collections curated; include technical reports in project file.

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Table 4-2
Infrastructure Improvements Project
Mitigation Monitoring Program

Mitigation Number	Applicability Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
			Mitigation CULT-1F and, for a prehistoric resource, LRDP Mitigation CULT-4B. In the event that these measures, in the professional judgment of a qualified archaeologist in consultation with the Campus, cannot mitigate the impact to a less-than-significant level, the Campus shall implement LRDP Mitigations CULT-3A and 3B, as applicable.	Consult with architectural historian to identify avoidance measures, and include in plans and specs.	PP&C	Prior to final approval of plans and specs	Verify that plans and specs include relevant avoidance measures and document in project file.
IIP-SW Mitigation CULT-1C	All	All	The Campus shall implement LRDP Mitigations CULT-1G, CULT-4C and CULT-4D, as pertinent. (Emergency discovery provisions)	Include stop-work requirement in bid documents.	PP&C	Prior to issuing bid documents	Confirm that contract specs include stop work provision; document in project file.
				In the event of a find, comply with procedures described in LRDP MMP for LRDP Mitigation CULT-1F.	PP&C	Upon a discovery during construction	Document findings in campus cultural resources database and include technical reports in project file.

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<sup>2.</sup> AMMR- Annual Mitigation Monitoring Report.

Table 4-2 Infrastructure Improvements Project Mitigation Monitoring Program

Mitigation Number	Applicability Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
				In the event of a discovery of suspected human bone, halt excavation and follow notification and consultation procedures described in LRDP MMP for LRDP Mitigations CULT-4B, -4C and -4D.	PP&C	Throughout construction	Document and discoveries, and notification/ consultation, in project file.
IIP-ALL Mitigation GEO-1	All	All	The Campus shall implement LRDP Mitigation GEO-1. (Geotechnical studies to support facility design)	Refer to LRDP MMP, LRDP Mitigation GEO -1.	PP&C	During project planning and design	Refer to LRDP MMP, LRDP Mitigation GEO-1.
IIP-CW Mitigation HAZ-2A	Projects involving demolition	All	The Campus shall implement LRDP Mitigation HAZ-7. (Identification and remediation of contaminated building materials)	Refer to LRDP MMP, LRDP Mitigation HAZ -7.	PP&C/ EH&S	Prior to and during demolition	Refer to LRDP MMP, LRDP Mitigation HAZ-7.
IIP-CW Mitigation HAZ-2B	Cooling tower improvements	All	Consistent with standard campus practices, EH&S will investigate whether chromium has been used in the cooling water system in the past and, if appropriate, will conduct	EH&S will research cooling tower operating specs and, if chromium use is suspected, will test for residues.	EH&S	Prior to beginning cooling tower modifications	Confirm results of research and/or testing and document in project file.

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Table 4-2 Infrastructure Improvements Project Mitigation Monitoring Program

Mitigation Number	Applicability Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
IIP-CW- Mitigation HAZ-2B (cont)			testing. If testing reveals that the cooling tower debris is contaminated, it will be handled in accordance with applicable federal, state and local regulations.	If residues are present, contractor will be required to handle debris in accordance with applicable regulations. Include requirements in bid documents.	PP&C/ EH&S	Prior to issuing bid documents, and during demolition	Ensure that applicable requirements and notifications are included in bid documents.
IIP-ALL Mitigation HYD-2	Projects on hillsides >10% slope	All	The Campus shall implement LRDP Mitigation HYD-2B. (Erosion control for construction on steep slopes during rainy season)	Refer to LRDP MMP, LRDP Mitigation HYD -2.	PP&C	Prior to the beginning of construction	Refer to LRDP MMP, LRDP Mitigation HYD-2.
IIP-SW Mitigation HYD-3A	Storm water dispersion manifolds	All	The Campus shall monitor dispersion manifolds for evidence of erosion on an annual basis. If there is evidence that the dispersion manifolds are causing erosion, the Campus shall repair the erosion damage and implement any repairs or alterations to the design of the manifolds necessary to prevent further erosion.	Inspect each dispersion manifold. Repair any erosion and repair or redesign manifolds as needed.	Grounds Services	Annually	Grounds Services will report status of each manifold annually; document in AMMR.
IIP-SW Mitigation HYD-3B	New cooling tower		For improvements included in the Infrastructure Improvements Project that increase impervious surfaces (the new cooling tower), the Campus shall implement LRDP Mitigations HYD-3C and HYD-3D.	Review design of new cooling tower to ensure that peak flows from new impervious surface meet mitigation standards and that cooling tower project	PP&C	Prior to design approval	Refer to LRDP MMP, LRDP Mitigations HYD -3C and -3D.

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## Table 4-2 Infrastructure Improvements Project Mitigation Monitoring Program

Mitigation Number	Applicability Project Type	Location	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
			(Minimize storm water peak flows and runoff)	design minimizes storm water runoff.			
IIP-ALL Mitigation NOIS-1	All grading and construction projects	Within 100 feet of a building or sensitive receptor	The Campus shall implement LRDP Mitigation NOIS-1 for all improvements that are within 100 feet of an existing campus building or sensitive receptor.  (Construction noise controls)	Refer to LRDP MMP, LRDP Mitigation NOIS- 1.		Prior to grading plan approval and during construction	Refer to LRDP MMP, LRDP Mitigation NOIS-1.
IIP-CW Mitigation NOIS-2	New cooling tower	Science Hill	The Campus shall achieve an exterior noise level of 70 dBA CNEL at the Earth and Marine Sciences Building adjacent to the new cooling tower by selecting a less noisy cooling tower or by design measures and operational changes.	Select cooling tower and/or include design and operational specification in the project to ensure that noise criteria at adjacent buildings, as specified in mitigation, will be met.	PP&C	Prior to design approval and before project goes out to bid	Confirm that project / facility specs meet noise criteria and that these specs are included in bid documents, and document in project file.

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Table 4-3
Family Student Housing Redevelopment Project
Mitigation Monitoring Program

Mitigation Number	Applicable Phase or Component	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
FSH Impact AES-3	Project design	The Campus will minimize potential degradation of the existing visual character of the site by implementation of LRDP Mitigations AES-5A through 5D.  (Visual character and quality, height relative to surrounding trees, preservation of aesthetically valuable trees, and Site Stewardship)	Refer to LRDP MMP, LRDP Mitigations AES -5A through –5D.	PP&C/ Project Architect and DAB as relevant	During project planning and design review	Refer to LRDP MMP, LRDP Mitigations AES -5A through -5D.
FSH Mitigation AES-4	Project design	The Campus shall implement LRDP Mitigations AES-6A through AES-6C and AES-6E (Reflective glare, lighting design, light and glare)	Refer to LRDP MMP, LRDP Mitigations AES -6A, -6C and -6E.	PP&C	Prior to final design approval	Refer to LRDP MMP, LRDP Mitigations AES -6A, -6C and – 6E.
FSH Mitigation AIR-1	Construction	The Campus shall implement LRDP Mitigation AIR-1. (Construction PM <sub>10</sub> emission control)	Refer to LRDP MMP, LRDP Mitigation AIR-1.	PP&C	Before project goes out to bid and throughout construction	Refer to LRDP MMP, LRDP Mitigation AIR- 1.
FSH Mitigation AIR-4	Occupancy	The Campus shall implement LRDP Mitigations AIR-4A and –4B. (AMBAG and MBUAPCD consultation)	Refer to LRDP MMP, LRDP Mitigations AIR- 4A and –4B.	PP&C	At project occupancy	Refer to LRDP MMP, LRDP Mitigations AIR- 4A and –4B.
FSH Mitigation AIR-5A	Construction	The Campus will minimize construction emissions by implementing LRDP Mitigation AIR-6.	Refer to LRDP MMP, LRDP Mitigation AIR-6.	PP&C	Before project goes out to bid and throughout construction	Refer to LRDP MMP, LRDP Mitigation AIR-6.

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<sup>2.</sup> AMMR- Annual Mitigation Monitoring Report.

Table 4-3
Family Student Housing Redevelopment Project
Mitigation Monitoring Program

Mitigation Number	Applicable Phase or Component	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
		(Construction emission controls)				
FSH Mitigation AIR-5B	Construction	For the duration of Phase 1 construction, the Campus shall relocate the childcare center at one of the identified alternative sites, away from the construction zone.	Ensure that childcare center is vacated prior to beginning of construction and remains vacant throughout first phase of construction.	PP&C	Prior to beginning of construction	Verify that childcare center has been relocated for duration of first phase construction and document in project file.
FSH Mitigation AIR-5C	Construction	Before construction of Phase 2 is commenced, the Campus will evaluate available information with respect to acrolein emission factors to determine whether the potential for significant impact would still exist. If this assessment indicates that there is a potential health risk, the Campus shall ensure that the childcare center in the FSH complex is not occupied during the Phase 2 construction period.	Evaluate available information regarding acrolein at the time Phase 2 construction is proposed. If there is potential health risk, require that childcare center be vacated for the duration of Phase 2 construction.	PP&C	Prior to the beginning of Phase 2 construction	Confirm acrolein analysis. If potential health risk was identified, document that childcare center has been relocated for duration of construction.
FSH Mitigation BIO-2	Construction	The Campus shall implement LRDP Mitigation BIO-11. (Nesting birds avoidance and protection)	Refer to LRDP MMP, LRDP Mitigation BIO-11.	PP&C	Prior to the beginning and construction and throughout construction	Refer to LRDP MMP, LRDP Mitigation BIO- 11.

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Table 4-3
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Mitigation Monitoring Program

Mitigation Number	Applicable Phase or Component	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
FSH Mitigation BIO-4	Construction	The Campus shall implement LRDP Mitigation BIO-14. (Avoid and protect woodrats)	Refer to LRDP MMP, LRDP Mitigation BIO-14.	PP&C	Before and during construction as required	Refer to LRDP MMP, LRDP Mitigation BIO- 14.
FSH Mitigation CULT-1	Construction	The Campus shall retain a qualified archaeologist to monitor initial site grading in the area of the proposed southern storm water detention basin and any grading, including utility trenching, within 50 feet of	Archaeologist monitor grading as specified and maintain daily monitoring logs.	PP&C	During construction	Retain monitoring logs in project file.
		the known margin of CA-SCR-142, to determine whether intact deposits are present. If archaeological materials are exposed by grading, the Campus shall implement LRDP Mitigation CULT-1G and LRDP Mitigation CULT-4B. If human remains are exposed and the County Coroner determines them to be of Native American origin, the Campus shall implement LRDP Mitigation CULT-4C.	Include stop-work requirement in construction bid documents.	PP&C	Prior to issuing bid documents	Refer to LRDP MMP, Mitigation provisions under CULT-1F, -4B.
			In the event of a find, refer to LRDP MMP, Mitigation provisions under CULT-1F, -4B.	PP&C	At discovery and subsequent to archaeological data recovery	Refer to LRDP MMP, Mitigation provisions under CULT-1F, -4B.
FSH Mitigation CULT-2	Occupancy	The Campus shall implement LRDP Mitigation CULT 6.	Refer to LRDP MMP, LRDP Mitigations BIO- 8A and –8B).			

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Table 4-3
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Mitigation Number	Applicable Phase or Component	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
FSH Mitigation CULT-2 (cont)		(Implementation of LRDP Mitigations BIO-8A and-8B: Educational material and gate to protect sensitive cave habitat)	Once educational material as specified in LRDP Mitigation BIO-8A has been prepared, ensure that each new tenant is made aware of education materials and/or that printed materials are distributed to each new tenant.	CUHS	Distribute when tenant moves in; confirm annually	Confirm educational material is distributed to residents and report in AMMR.
			Ensure cave barrier is installed prior to full occupancy of second phase of FSH Redevelopment.	Physical Plant	Prior to second phase occupancy	Confirm gate installation and report in AMMR.
FSH Mitigations GEO-1 and GEO-2	Project design	The Campus shall implement LRDP Mitigation GEO-1. (Geotechnical studies to support facility design)	Refer to LRDP MMP, LRDP Mitigation GEO-1.	PP&C	During project planning and design	Refer to LRDP MMP, LRDP Mitigation GEO- 1.
FSH Mitigation HAZ-1	Construction	The Campus shall implement LRDP Mitigation HAZ-7 and FSH Mitigation AIR-5B. (Identify and remediate contaminated material during construction; Relocate childcare facility prior to construction)	Refer to LRDP MMP, LRDP Mitigation HAZ-7 and FSH Mitigation AIR- 5B.	PP&C/EH&S	Prior to demolition, prior to issuing bid documents, and during demolition	Refer to LRDP MMP, LRDP Mitigation HAZ- 7 and FSH Mitigation AIR- 5B.

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Table 4-3
Family Student Housing Redevelopment Project
Mitigation Monitoring Program

Mitigation Number	Applicable Phase or Component	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
FSH Mitigation HAZ-2	Project design and throughout occupancy	The Campus shall implement LRDP Mitigations HAZ-10A, 10B and 10D. (Annual fire safety inspections, develop Vegetation Management Plan and use of Uniform Wildland Interface Code as relevant)	Refer to LRDP MMP, LRDP Mitigations HAZ- 10A, -10B and -10C.	UCSC Fire Department/ Physical Plant	During final design and annually	Refer to LRDP MMP, LRDP Mitigations HAZ-10A, -10B and -10C.
FSH Mitigation HYD-1	Project design	The Campus shall implement LRDP Mitigation HYD-2B. (Erosion control for construction on steep slopes during rainy season)	Refer to LRDP MMP, LRDP Mitigation HYD-2.	PP&C	Prior to the beginning of construction	Refer to LRDP MMP, LRDP Mitigation HYD- 2.
FSH Mitigation HYD-2A	Project Design	The Campus shall implement LRDP Mitigations HYD-3C and HYD-3D. (Minimize storm water peak flows and runoff)	Refer to LRDP MMP, LRDP Mitigations HYD- 3C and –3D.	PP&C	Prior to the beginning of construction	Refer to LRDP MMP, LRDP Mitigations HYD-3C and – 3D.
FSH Mitigation HYD-2B		The Campus shall develop a storm water management system for the proposed FSH Redevelopment Project during detailed project design and shall document that the selected storm water management system adequately retains, detains, and infiltrates runoff such that the peak flows and total volume of water released to Moore Creek do not exceed the design capacity of existing downstream erosion control structures.	The Campus will ensure that the proposed project storm water management system design meets the specified criteria.	PP&C	Prior to design approval	Confirm that design was reviewed and ascertained to meet criteria, and document in project file and AMMR.

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Table 4-3
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Mitigation Monitoring Program

Mitigation Number	Applicable Phase or Component	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
FSH Mitigation NOIS-1	Construction	The Campus shall implement LRDP Mitigation NOIS-1. (Construction noise controls)	Refer to LRDP MMP, LRDP Mitigation NOIS-1.		Prior to grading plan approval and during construction	Refer to LRDP MMP, LRDP Mitigation NOIS- 1.
FSH Mitigation TRA-1A	Occupancy	The University shall contribute its "fair share" (as defined in Section 4.14, Volume II of this EIR) toward the cost of the improvements to the two affected intersections, as identified in Table 3-12 (Volume III in the Draft EIR).	For intersection improvements at Empire Grade/Western Drive and King St./Storey St., the Campus will inform the City that intersection operations are expected to degrade to unacceptable levels with full occupancy of FSH project.	PP&C/TAPS	Prior to full occupancy of FSH Redevelopment Project	Confirm that City has been informed and document in project file. Report on status of planned City improvements in AMMR.
			The Campus will negotiate its fair share of the improvement costs.	TAPS/ Planning & Budget	When improvement has been scheduled in City capital improvement program	Document progress of negotiation in AMMR.
			Pay fair share.	Executive Vice Chancellor	When City makes the improvement	Document status of payment in AMMR.

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## Table 4-3 Family Student Housing Redevelopment Project Mitigation Monitoring Program

Mitigation Number	Applicable Phase or Component	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
FSH Mitigation TRA-3	Construction	The Campus shall develop a construction traffic management plan to delineate and monitor construction routes and schedule, and monitor construction traffic into and through the FSH complex, in order to prevent conflicts between construction traffic, other vehicles, and pedestrians and bicycles.	Develop traffic management plan as specified and require implementation throughout construction.	PP&C	Prior to the beginning of construction	Verify that traffic management plan as per mitigation is in place and has been and will be implemented throughout construction.  Document in project file.

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<sup>2.</sup> AMMR- Annual Mitigation Monitoring Report.

Table 4-4 2300 Delaware Avenue Project Mitigation Monitoring Program

Mitigation Number	Applicable Phase or Component	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
DA Mitigation HAZ-1	Operations	The Campus shall implement LRDP Mitigations HAZ-2 and HAZ-11. (Hazardous waste minimization; require hazardous materials protections for non UC entities operating in campus facilities)	Refer to LRDP MMP, LRDP Mitigations HAZ-2 and HAZ-11.	EH&S	Ongoing	Refer to LRDP MMP, LRDP Mitigations HAZ-2 and HAZ-11.
DA Mitigation HYD-2	Operations	The Campus shall ensure that any pesticides, herbicides or chemical fertilizers used on the landscaping or exterior of the buildings on the 2300 Delaware Avenue property are applied in such a manner as to prevent migration off site, and that they are not applied during inclement weather.	Grounds Services to consult with hydrologist to develop procedures that comply with specifications, and ensure implementation	PP&C/ Grounds Services	Procedures to be developed before first rainy season following project approval	Verify and document in project file that plan has been completed; Grounds Services to verify implementation annually.
DA Mitigation REC-1A	Operations	UC Santa Cruz shall provide trash and litter collection services for containers along the east side of Antonelli Pond.	Grounds Services to provide and service litter receptacles along western property boundary adjacent to Antonelli Pond trail.	PP&C/ Grounds Services	Within 3 months of project approval	Ground Services to report annually on status of compliance.
DA Mitigation REC-1B	Operations	UC Santa Cruz shall consult with the Land Trust of Santa Cruz County and the City of Santa Cruz regarding the Campus's fair share contribution (as	Consult as specified to determine cost of picnic and trail facilities as specified.	Physical Plant/ Planning and Budget	Within one year of project approval	Confirm consultation and document in AMMR.

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Table 4-4 2300 Delaware Avenue Project Mitigation Monitoring Program

Mitigation Number	Applicable Phase or Component	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
		defined in Section 4.14, Volume II of this EIR) toward providing and maintaining picnic and trail facilities at Antonelli Pond.	Negotiate fair share.	Physical Plant/ Planning and Budget	Within one year of project approval	Confirm fair share negotiation and document in AMMR.
			Pay fair share.	Executive Vice Chancellor	When Trust and/or City make improvements	Document fair share payment in AMMR.
DA Mitigation REC-2D	Operations	The Campus shall implement LRDP Mitigation REC-2D.	Refer to LRDP MMP, LRDP Mitigation REC- 2D. In addition, contact City and Land Trust to initiate coordination and organization of volunteer activities specifically related to Antonelli Pond, and initiate activities.	PP&C/ Physical Plant	Initiate within six-months of project approval; Ongoing, semi- annually	Annually, by June 30, confirm that advertising and volunteer projects were conducted as specified and document and report number of UC Santa Cruz volunteers at Antonelli Pond in AMMR.
DA Mitigation TRA-1A		The Campus shall contribute its fair share, as defined and described in Section 4.14, Volume II of this EIR, toward the cost of installing a traffic signal at the intersection of Empire Grade and Western Drive and updating the signal timing at the intersection of Mission Street / Bay Street.	Inform City that LOS would degrade to unacceptable levels at the identified intersections. Monitor City's capital improvement program for scheduling of the identified improvements.	PP&C/ TAPS	Annually, starting from approval of project	Confirm that City has been informed and document in AMMR. Report on status of planned City improvements in AMMR.

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Table 4-4 2300 Delaware Avenue Project Mitigation Monitoring Program

Mitigation Number	Applicable Phase or Component	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
			Negotiate fair share.	TAPS/ Planning & Budget	When City includes the improvements at the identified intersections in its CIP	Document progress of negotiation in AMMR.
			Pay fair share.	Executive Vice Chancellor	When City makes the improvement	Document status of payment in AMMR.
DA Mitigation TRA-1B	Operations	The Campus shall implement LRDP Mitigation TRA-2B. (Continue to improve TDM programs)	Refer to LRDP MMP, LRDP Mitigation TRA-2B.			
			In addition, conduct transportation survey of employees at 2300 Delaware Avenue.	TAPS	Annually	In addition, report annually on effectiveness of existing TDM measures at 2300 Delaware Avenue.
			Assess modal mix at facility, identify and implement relevant TDM improvements.	TAPS	Annually	Report plans for revisions and/or changes to TDM program; document in AMMR.

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Table 4-4 2300 Delaware Avenue Project Mitigation Monitoring Program

Mitigation Number	Applicable Phase or Component	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
DA Mitigation TRA-2	Operations	The Campus shall implement Parking Management and Transportation Demand Management measures at the project site and monitor parking demand. If parking occupancy reaches 90 percent of the supply, the Campus shall work with City of Santa Cruz to designate permit parking	Implement Parking management and TDM programs at 2300 Delaware Avenue.	TAPS	Within 1 year of project approval	By June 30 each year, report on TDM and parking management measures at 2300 Delaware; report results in AMMR.
		on adjacent streets for use by employees and visitors; provide additional incentives for staff to use transit; or expand the	Monitor demand.	TAPS	Annually	Report demand in AMMR.
		existing parking lots to provide additional spaces if necessary.	If parking reaches 90 percent occupancy, consult with City on additional parking management measures, and expand TDM program as specified.	TAPS	At such time as parking demand reaches 90 percent	Document consultation with City and additional TDM measures in AMMR.
			If parking demand continues to exceed 90 percent, consider proposing expansion of parking lots.	TAPS/PP&C	If demand exceeds site capacity after three years	Document issues in AMMR.
DA Mitigation TRA-3	Operations	The University shall implement, or coordinate with SCMTD to implement, a transit route or route that adequately serves the project site.	Consult with SCMTD to investigate transit options and implement shuttle or coordinate on implementing transit route.	TAPS	Within one year of project approval; revisit annually	Document consultation and solution in AMMR.

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Table 4-4 2300 Delaware Avenue Project Mitigation Monitoring Program

Mitigation Number	Applicable Phase or Component	Mitigation Measure	Mitigation Procedure	Responsible Party <sup>1</sup>	Mitigation Timing	Monitoring and Reporting Procedure
DA Mitigation UTIL-1A	Operations	The Campus shall implement LRDP Mitigations UTIL-9A through 9I at the project site in conjunction with the occupancy of the 2300 Delaware Avenue site. (Water use efficiency and conservation measures)	Implement all relevant water conservation and efficiency measures relevant to the 2300 Delaware Avenue facility as specified in the LRDP MMP, LRDP Mitigations UTIL-9A through-9I.	Physical Plant	Various; refer to LRDP MMP, LRDP Mitigations UTIL-9A through –9I.	Refer to LRDP MMP, LRDP Mitigations UTIL-9A through -9I.
DA Mitigation UTIL-1B	Operations	The Campus shall, in conjunction with the redevelopment of Building C, implement a program of landscape redesign and renewal at 2300 Delaware Avenue to reduce the area of turf and replace landscape materials with drought-tolerant native plants, as feasible.	Assess landscaping to determine cost effective measures to reduce water use and renew landscaping with drought-tolerant native plants.	Physical Plant Services	Within one year of project approval	Confirm that assessment is complete and document in project file.
			Institute a systematic program of replacement with the goal of reducing turf.	Physical Plant/Grounds Services	Ongoing, beginning within one year of project approval	Document efforts and results annually.
DA Mitigation UTIL-1C	Operations	Concurrent with landscape renewal, the Campus shall implement a transpiration irrigation system at the site similar to that used on the main campus to minimize irrigation water use.	Design and implement irrigation improvements as specified.	Physical Plant/Grounds Services	Within 3 years of project approval	Confirm that new system has been installed; document in AMMR.

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