

UC Santa Cruz 2005 LRDP EIR

Annual Mitigation Monitoring Report, 2013-14

Introduction and Summary

The California Environmental Quality Act (CEQA) requires that a Lead Agency establish a program to monitor or 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 or 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 Regents of the University of California (The Regents) certified the UC Santa Cruz 2005 Long Range Development Plan (2005 LRDP) Environmental Impact Report (EIR) and approved the 2005 LRDP in September 2006; a Mitigation Monitoring Program (MMP) for the 2005 LRDP EIR was adopted at the same time (<http://lrpd.ucsc.edu/Final2005EIR/2005feir-IV-4.0-mmp.pdf>). The Mitigation Monitoring Program (MMP) for the UC Santa Cruz 2005 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 includes the following information:

Mitigation Number: The number assigned to the mitigation measure in the Final 2005 LRDP EIR.

Applicability/ Project Type: The applicability of the mitigation, whether to general campus operations, to certain types of projects (e.g., only housing projects), or to all development projects under the 2005 LRDP.

Location: The specific parts of campus to which the mitigation measure applies (e.g., in or near the Cowell Lime Works Historic District).

Mitigation Measure: The full text of the mitigation measure as given in the Final EIR.

Mitigation Procedure: A summary of the steps to be taken to implement the mitigation measures.

Responsible Party: Assignment of responsibility for implementation of the mitigation measure to a specific campus unit.

Mitigation Timing: For general campus mitigations, when the mitigation must be implemented (e.g., an event that triggers the mitigation, intervals at which implementation is required, or a deadline for completion). For project-specific mitigations, the stage(s) of project development during which the mitigation action will be taken.

Monitoring and Reporting Procedure: Procedures for documenting and reporting mitigation activities.

Mitigations are divided into two categories: *general campus measures*, which are implemented by the campus on an ongoing basis, and *project-specific measures*, which are implemented in conjunction with the development of individual campus construction projects. Examples of general campus mitigation measures are: 1) changes to campus operations and retrofitting existing facilities to reduce campus water use, and 2) the campus' transportation demand (TDM) program, which is designed to reduce the number of vehicle trips to the campus. Examples of project-specific mitigation measures are: 1) the protection of specific biotic resources or cultural resources during construction of a building, and 2) specific notice of anticipated construction noise for nearby residents. A few mitigations have both general and project-specific elements. The mitigation monitoring program for a development project may include both project-specific measures identified in the LRDP EIR, and mitigation measures identified in the project-level CEQA document, which applies only to that project.

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 is directly 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 other campus staff with their responsibilities, to ensure that they understand their charge and complete the required procedures accurately and on schedule.

In addition to overseeing the specific procedures for implementation of each mitigation measure, Physical Planning and Construction is responsible for preparing this Annual Mitigation Monitoring Report. The purpose of the Annual Mitigation Monitoring Report is to 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, to identify applicable mitigation measures and document the status of compliance for each project. The Annual Mitigation Monitoring Report is available for review by appointment at the office of Physical Planning and Construction on campus and posted on the campus website (<http://lrpd.ucsc.edu/mitigation-monitoring.shtml>).

For each general campus measure, a representative of the responsible campus unit completes a report form each year for compiling into the report. For each project, a checklist is prepared for all 2005 LRDP EIR and project-level mitigations applicable to the project. Reporting on the status of project-specific mitigations is the responsibility of each project manager, who updates the checklist on a quarterly basis.

Note that more than one campus unit may be assigned responsibilities for implementation of a given mitigation measure. In some cases, several units may be responsible for the same action (e.g., Colleges Housing and Educational Services [CHES] - (formerly Colleges and University Housing Service [CUHS]), Physical Plant Grounds Services, the Arboretum and the Center for Agriculture and Sustainable Food Systems are all required to comply with mitigations that regulate landscape irrigation). In other cases, implementation of the mitigation measure requires multiple actions, each of which may

be the responsibility of a different unit. Each unit reports annually on each of its mitigation responsibilities; therefore, there may be multiple reports on annual compliance with a given mitigation measure, and more than one status category may be assigned to a single mitigation in any particular year.

The annual report also provides a description of activity undertaken by each responsible department relative to each mitigation measure and, if applicable, links to detailed reports or other supporting documentation of mitigation activity.

Explanation of Terms Used in Annual Mitigation Monitoring Report

The status of each mitigation measure is assessed each year, as: **Completed-No Further Action, Complete-Ongoing, In Progress, Not Triggered, or Other** (see definitions, below).

Completed – No Further Action: The mitigation commitment has been fulfilled, either in the current reporting year or previously, and no further action is required in future years. These are generally one-time actions that were to be completed within a certain period of time after approval of the 2005 LRDP.

Completed-Ongoing: Mitigation commitments were implemented or monitored during the current reporting year, and additional actions are required in future years to fulfill the commitment. Mitigations in this category are generally measures that are to be implemented on an ongoing basis through the life of the 2005 LRDP, or measures that may take several years to complete.

In Progress: Ongoing or one-time mitigation commitments that have been partially implemented during the current reporting year. The "Summary of Mitigation Activities" section of this report further describes the campus's progress in implementing such mitigation measures.

Not Triggered: The need to take action to fulfill the mitigation commitment did not occur during the reporting year. Mitigations in this category may apply only after a certain time period has elapsed, only when the campus begins to develop a particular part of the campus, or only under particular circumstances, such as a drought emergency.

Other: The status of one mitigation (LRDP Mitigation AES-6E) is described as "Other." In previous years this measure was listed as a general campus mitigation as well as a project-specific mitigation, although it is implemented only on a project-by-project basis. Beginning in the 2009-10 reporting year, the mitigation is monitored only at the project level.

Summary of 2013-14 Mitigation Activities

General Campus Mitigation Measures

In 2013-14, the Campus fulfilled its mitigation commitments by implementing and/or monitoring the 61 general campus mitigation measures adopted by The Regents in connection with its approval of the 2005 LRDP. These 61 mitigation measures contain a total of 76 individual mitigation commitments. In addition, the Campus implemented

and/or monitored ten mitigations adopted by The Regents in connection with its approval of the 2300 Delaware Avenue Project in February 2007. This brings the total number of individual mitigation commitments to 86.

Ten of these commitments were completed during the 2013-14 reporting period or in a previous year and require no further action in future years, 62 ongoing mitigation commitments were implemented, five were in progress but not completed during the reporting period, and eight were not triggered. As explained above, one mitigation previously listed as a general campus mitigation is now monitored at the project level.

Table 1, Mitigation Status Summary

[\[http://lr.dp.ucsc.edu/MonitoringReports/MMP_Table1_2013-14.pdf\]](http://lr.dp.ucsc.edu/MonitoringReports/MMP_Table1_2013-14.pdf) lists all of the general campus mitigations and their status for the 2013-14 reporting year. A complete description of general campus mitigation activities conducted during this reporting year is presented below, under the heading *Complete Description of 2013-14 General Campus Mitigation Activities*.

The status of each mitigation measure that was not implemented completely during this reporting year is described in the following paragraphs:

HAZ-10A requires that the UCSC Fire Department continue to conduct annual inspections of all residential and laboratory buildings and biennial inspections of all other buildings. No inspections were done in 2013-2014 by the UCSC Fire Department. Campus Fire Department operations officially were transferred to the City of Santa Cruz on July 1, 2014. The Campus continues to employ a Fire Marshal and a Deputy Fire Marshal, now in the Office of Emergency Services. The Deputy Fire Marshal is now responsible for inspecting Campus buildings.

REC-2D-PP requires that the Campus coordinate with City on volunteer trail maintenance days. There were no volunteer trail maintenance days planned with the City due to Grounds Services staffing reduction of hours for Site Stewardship activities.

LRDP Mitigation TRA-4F requires that the Campus 1) develop a pedestrian plan for the campus within two years of 2005 LRDP approval; 2) annually, evaluate existing way-finding systems, identify need for improvements, and prioritize improvements for implementation; and 3) implement systems as needed according to priority. Preliminary work for a Campus Pedestrian Plan started in Winter 2011 but the plan has not been completed. The Campus has identified the key elements of an improved way-finding system, adopted revised official street names for all on-campus streets and roadways, and installed new road signs on all roadways.

LRDP Mitigation UTIL-9H requires the Campus to complete the retrofit of 3.5-gallon-per flush (gpf) toilets in all on-campus student housing within five years of approval of the 2005 LRDP in September 2006. This mitigation has been completed at most student housing facilities. However, at Merrill, Kresge, and Oakes colleges, the retrofits have triggered major accessibility improvements, which has delayed completion of the mitigation. CHES Capital Planning completed Flushometer upgrades to housing facilities in Merrill College in summer 2014. Replacement of toilets at Kresge College will be included in an upcoming major capital renewal project, the schedule of which has not yet been determined. CHES is currently developing a plan for replacement of toilets at Oakes

College Apartments as part of a capital renewal project that will include code-required accessibility improvements.

DA REC-2D requires that UCSC coordinate with City and/or Land Trust on volunteer maintenance activities at Antonelli Pond. There was no coordination of volunteer activities at Antonelli Pond this year due to 60% cut in time allotted to Site Stewardship activities.

Project Mitigation Monitoring

In 2013-14, the Campus monitored project-specific LRDP EIR mitigation measures for the following projects, which were in planning, design or construction:

Infrastructure Improvements, Phase 2. This project includes improvements to the Campus electrical distribution system and the heating hot water system, and additional storm water drainage improvements. Design was completed in 2011-12. Approval of the storm water drainage improvements in July 2008 included adoption of a mitigation monitoring and reporting program. The heating hot water, electrical, and natural gas system improvements were approved in November 2012. Construction began in Summer 2013 and will be completed in 2014-15.

Cogeneration Plant Replacement Phase 1 Project. The Cogeneration Plant Replacement Phase 1 Project was approved in December 2011. The design process continued through the summer of 2012. Construction began in summer 2012 and will be completed in 2014-15.

Merrill Residence Halls Capital Renewal Project. This project was approved in January 2013. The first phase of construction began in June 2013 and was completed in Fall 2013. The second phase began in Winter 2014 and will be completed in 2014-15.

Telecommunications Infrastructure Improvements Phase A. The Telecommunications Infrastructure Improvements Phase A project was approved in July 2013. Construction began in Fall 2013 and will be completed in 2014-15.

Table 2, *Project Implementation of LRDP EIR Mitigation Measures* [http://lrdp.ucsc.edu/MonitoringReports/MMP_Table2_2013-14.pdf] lists the LRDP EIR mitigations incorporated into each of the projects approved under the 2005 LRDP EIR. Table 3, *Project-Specific Mitigation Summary* [http://lrdp.ucsc.edu/MonitoringReports/MMP_Table3_2013-14.pdf] lists and briefly describes the project-specific mitigation measures identified in project-level CEQA documents. These tables also report the status of each mitigation measure as of the date of this report.

Complete Description of 2013-14 General Campus Mitigation Activities

AES-5D : Continue Site Stewardship Program.

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2013-14

The Site Stewardship Program was curtailed due to budgetary issues within Grounds Services. The Site Stewardship Coordinator position was reduced from 16-20 hrs per week to 6 hours per week. The number of volunteer days decreased from 9 to 5 for the year. The number of volunteers participating decreased from 123 the prior year to 46 this year. Although the number of interns remained nearly the same (9.5), the intern hours decreased from 495 hours the previous year to 264 hours this year. The Adopt-A-Site program with Sigma Pi continued. The drought also curtailed restoration projects contingent on seasonal rainfall.

AES-6B: Minimize light pollution in new development projects.

Responsible Unit: PP&C

Status: Completed - Ongoing

Description of Status for 2013-14

Campus standards for lighting have not changed during the past year. They include the lighting design requirements specified in the mitigation, for both path and street lighting. General Building Requirements Part II F and Campus Standards Handbook Section 16530 require that lighting be installed for safety only and that decorative lighting may be used only under certain circumstances and upon approval of Campus Architect. Site Requirements Part III H states that lighting with non-glare downlighting characteristics is preferred for all areas around buildings.

AES-6D: Turn off field lights at 11 PM.

Responsible Unit: OPERS

Status: Not Triggered

Description of Status for 2013-14

OPERS does not have any field lights at this time.

AES-6E: DAB review outdoor lighting

Responsible Unit: PP&C

Status: Other

Description of Status for 2013-14

This mitigation is now implemented and monitored at the project level

AIR-1: Construction dust control.

Responsible Unit: PP&C

Status: Completed - Ongoing

Description of Status for 2013-14

PP&C's template for Division 1 of the construction contract includes this requirement. For each project, the Project Manager reviews the template, selects the applicable measures, and reports on the selected measures and their implementation in the project mitigation monitoring report.

AIR-4A: Work with AMBAG on regional population forecasts.

Responsible Unit: PP&C

Status: Completed - No Further Action

Description of Status for 2013-14

This mitigation was completed in 2008-09. AMBAG issued a new consistency determination for the 2005 LRDP in April 2009 stating that the 2005 LRDP is consistent

with the 2008 regional forecasts and Air Quality Management Plan. No further action is required.

AIR-4B: Work with MBUAPCD on campus growth-related emissions.

Responsible Unit: PP&C

Status: Completed - No Further Action

Description of Status for 2013-14

This mitigation was completed in 2008-09. AMBAG issued new consistency determination for the 2005 LRDP in April 2009 stating that the 2005 LRDP is consistent with the 2008 regional forecasts and Air Quality Management Plan. No further action is required.

AIR-5A: Generator testing schedule.

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2013-14

The generators are tested per the mitigation measure and Physical Plant is abiding by table 4.3-22. The Delaval Cogeneration Engine was taken offline to standby mode only in late 2013 and then taken offline permanently in February of 2014.

AIR-5B-PP: Cogeneration system emissions

Responsible Unit: Physical Plant

Status: Completed - No Further Action

Description of Status for 2013-14

The Delaval engine (old cogeneration system) was shut down and in standby mode in late 2013 and then permanently shutdown in February of 2014. The project to replace the old cogeneration system with a new system with lower emissions is under construction and almost complete. This mitigation measure should need no further entries in future years as the the Delaval engine is offline permanently now and this measure refers to that engine.

AIR-6: Minimize construction air pollutant emissions.

Responsible Unit: PP&C

Status: Completed - Ongoing

Description of Status for 2013-14

PP&C's template for Division 1 of the construction contract includes this requirement. For each project, the Project Manager reviews the template, select the applicable measures, and reports on the selected measures and their implementation in the project mitigation monitoring report.

AIR-7: Reduce toxic air contaminant emissions.

Responsible Unit: PP&C

Status: Completed - Ongoing

Description of Status for 2013-14

Campus Standards Handbook Section 16600 specifies the use of natural gas and/or propane for emergency and stand-by generators.

BIO-15: Arboretum fencing allow mammal movement

Responsible Unit: Arboretum

Status: Completed - Ongoing

Description of Status for 2013-14

Currently, many areas are unfenced and there is plenty of access for wildlife; deer fencing is installed around individual plantings. The Arboretum is planning for a permanent deer fence, which will be designed to allow corridors around the areas for the deer and allow most smaller mammals through the fence. Plantings within the area are being developed with large tracts of open grassland vegetation linked to one another to provide continuity of grassland from the area west of Empire Grade to the Great Meadow.

BIO-7A-Police: Ohlone tiger beetle protection in Marshall Field.

Responsible Unit: Police

Status: Completed - Ongoing

Description of Status for 2013-14

Additional patrolling of Marshall field during the Ohlone tiger beetle's active season is not required at this time. See BIO-7A-PP for details.

BIO-7A-PP : Ohlone tiger beetle protection in Marshall Field.

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2013-14

During December 2005, Physical Plant Grounds Services successfully petitioned USF&WS for a minor amendment to the UCSC RVT HCP to discontinue the temporary fencing and resort to only using the permanent OTB signs. In addition to the RVT HCP affected grasslands, the temporary fences were also discontinued in Marshall Field. In previous years, the patrolling by Physical Plant Grounds Services was to maintain the temporary OTB fences and signs. In the absence of these temporary measures, formal patrols have been discontinued. Campus continues to monitor OTB presence on Campus and to adapt management based on ongoing research.

BIO-7B : USFWS consultation on Arboretum fencing

Responsible Unit: Arboretum

Status: Completed - No Further Action

Description of Status for 2013-14

Mitigation was completed in 2007. PP&C staff (Sally Morgan) and Arboretum Staff (Brett Hall) consulted with USFWS staff (Dave Pereksta and Roger Root) during a campus visit in June 2007. USFWS staff said they had no concerns with any fencing in the area.

BIO-8A-CNR : Cave signs and educational material.

Responsible Unit: CNR

Status: Completed - Ongoing

Description of Status for 2013-14

The Empire Cave sign was cleaned of spray paint graffiti and made legible once per Quarter by Campus Natural Reserve staff (summer 2013, Fall Quarter 2013, Winter Quarter 2014, and Spring Quarter 2014). The CNR is planning to replace the sign with a slightly larger sign with the same information as well as more information on how to avoid impacting the cave. The new sign will have a plexiglass cover to facilitate cleaning and maintenance. Trash was hauled from the exterior and interior of Empire Cave once during summer 2013, twice during Fall Quarter 2013, once during Winter Quarter 2014,

and twice during Spring Quarter 2014. Approximately 50 pounds of trash were removed by student volunteers, interns, and Campus Natural Reserve staff. During FY 2013-14, 138 students in four courses (ENVS 15, ENVS 167, EART 5, BIOE 114) visited the outside entrance of Empire Cave during on-campus field trips. These students learned about the formation of the cave, the rare sensitive species found within, and how to avoid impacting them (with an emphasis on staying out of the cave).

BIO-8A-PP : Signs and educational material to protect caves.

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2013-14

This mitigation is currently being implemented by the Campus Natural Reserve. See BIO-8A-CNR.

BIO-8B-PPC : Consult with agencies on cave barrier design.

Responsible Unit: PP&C

Status: Completed - Ongoing

Description of Status for 2013-14

PP&C staff consulted with USFWS staff in 2007, as described above, under mitigation BIO-7B. PP&C staff requested a consultation with CDFG staff in 2007, but CDFG staff did not respond to this request.

CULT-1B-PP : Archaeological resource training for campus employees.

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2013-14

A training was conducted on 6/18/2014 for thirty four staff and student assistants.

DA-HYD-2: Prevent off-site migration of landscape chemicals (2300 Delaware)

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2013-14

Grounds Services IPM practices have entailed a very few 'spot sprayings' of low toxicity pesticides. Any herbicides or chemical fertilizers were applied in a manner as to prevent migration off site.

DA-REC-1A: Trash and litter collection at Antonelli Pond.

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2013-14

UC Santa Cruz Grounds Services continued to provide trash and litter collection services for a container on the east side of Antonelli Pond.

DA-REC-1B: Contribute toward providing and maintaining picnic and trail facilities at Antonelli Pond.

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2013-14

UC Santa Cruz Grounds Ass't Superintendent Dave Roe consulted with the Land Trust of Santa Cruz County manager Lynn Overtree regarding the Campus's fair share

contribution (as defined in Section 4.14, Volume II of this EIR) toward providing and maintaining picnic and trail facilities at Antonelli Pond. The contribution agreed upon was for the university to clear and remove the brush that had overgrown the original pathway on the east side of the pond. The work was completed on 5/27/14.

DA-REC-2D: Coordination of volunteer activities at Antonelli Pond.

Responsible Unit: Physical Plant

Status: In Progress

Description of Status for 2013-14

There was no coordination of volunteer activities at Antonelli Pond this year due to 60% cut in time allotted to Site Stewardship activities.

DA-TRA-1A: Campus contribution to cost of intersection improvements (2300 Delaware).

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2013-14

UCSC paid the City of Santa Cruz \$419,000 in 2008-09 as mitigation for trips related to existing levels of traffic generated by activities at the 2300 Delaware facility. Pursuant to Section 4.4 of the 2008 Comprehensive Settlement Agreement, the University made an additional payment of \$14,755 in September 2011 to mitigate trips related to the Thin Films and Materials Lab Project in Building C of that facility. Additional payments will be made with future development of space within Building C.

DA-TRA-1B: TDM measures (2300 Delaware).

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2013-14

A Travel Survey was conducted during Spring 2014. However, only eight respondents (all of whom were students) reported the 2300 Delaware facility as their primary work site. Employees of 2300 Delaware are eligible for the same TDM programs provided for other UCSC staff and faculty, including:

- Subsidized SCMTD Faculty/Staff bus passes;
- Commuter Vanpool program;
- Emergency Ride Home program (for participants in other TDM programs);
- Zipcar ridesharing program; and
- Zimride ridematching services.

DA-TRA-2: Parking monitoring and management (2300 Delaware).

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2013-14

Parking utilization surveys were conducted mid-morning and mid-afternoon on five weekdays in Spring 2014, finding an overall utilization rate of 71.06%.

DA-TRA-3: Public transit to serve 2300 Delaware.

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2013-14

SCMTD continued to provide supplemental Route 20D transit service via the UCSC service agreement during 2013-14. While SCMTD implemented service reductions throughout Santa Cruz County in September 2011, UCSC's supplemental Route 20D continued to operate. Two additional Route 20 runs were implemented weeknights at 9:20pm and 10:20pm during the Winter 2014.

Discussions began with the SCCRTC to locate a Westside rail station along the recently acquired rail right-of-way. TAPS is advocating a location north of the 2300 Delaware facility to provide easy access to the SCMTD Route 20 and 20D service operating along Natural Bridges Drive. Pedestrian and bike paths would adjoin the rail corridor, providing new circulation routes to UCSC facilities at 2300 Delaware and the Coastal Science Campus.

DA-UTIL-1A: Water conservation at 2300 Delaware.

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2013-14

The irrigation system at 2300 Delaware is responsive to daily weather data, as well as automated leak detection and shut down. Under its preventative maintenance program, Grounds Services tests and adjusts the sprinkler system to reduce overspray and maximize distribution efficiency. Irrigation technicians respond quickly to any reports of suspected undesirable water flows.

20 toilets at 2300 Delaware have been replaced with 1.6 gpf fixtures, and four urinals were replaced with 1/8 gpf urinals in conjunction with LRDP Mitigation UTIL9E (implementation of the high-priority recommendations of the 2007 campus water audit). All restroom faucet aerators were replaced with 0.5-gpm aerators in summer 2010.

DA-UTIL-1C: Evapotranspiration irrigation system (2300 Delaware).

Responsible Unit: Physical Plant

Status: Completed - No Further Action

Description of Status for 2013-14

The irrigation system is responsive to daily weather data (RainMaster Evolutions Central Irrigation System), as well as automated leak detection and shut down. An annual Preventative Maintenance program tests and adjusts the sprinkler system to reduce overspray and maximize distribution efficiency. Irrigation technicians respond quickly to any reports of suspected undesirable water flows. 18,000 sq. ft. of turf with large rotor sprinklers was removed and replaced a low water use landscape with appropriate irrigation.

HAZ-10A: Annual/biennial building inspections

Responsible Unit: Fire Dept

Status: In Progress

Description of Status for 2013-14

No inspections were done in 2013-2014 by the UCSC Fire Department. Campus Fire Department operations officially were transferred to the City of Santa Cruz on July 1, 2014. The Campus continues to employ a Fire Marshal and a Deputy Fire Marshal, now in the Office of Emergency Services. The Deputy Fire Marshal is now responsible for inspecting Campus buildings.

HAZ-10B : Develop and implement Vegetation Management Plan

Responsible Unit: Physical Plant

Status: Not Triggered

Description of Status for 2013-14

Development on north campus was not under construction during the reporting year. The Campus has developed a Northeast Campus Area Plan that identifies a potential site for a new Social Sciences building north of the existing Fire Station but design of this building has not commenced. No action was required.

HAZ-10C: Wildland fire prevention signage.

Responsible Unit: Physical Plant

Status: Not Triggered

Description of Status for 2013-14

Development on north campus was not under construction during the reporting year. No action was required.

HAZ-2: Enhance hazardous waste minimization program.

Responsible Unit: EH&S

Status: Completed - Ongoing

Description of Status for 2013-14

EH&S transported and managed 28.7 tons of hazardous wastes from the point of generation to the waste facility and offsite. This number does not reflect lead, asbestos or universal waste generation.

This year 386 faculty, staff and students took the online Hazardous Waste Management Training Class, which is a webbased training accessed through the campus Learning Management System.

Environmental Programs initiated the first ever Spring Cleaning Event for Science Hill, over 14 labs participated and produced 1,800 pounds (439 containers) of hazardous waste. In addition, EH&S and Green Labs helped remove cardboard, paper, pipette tip boxes, plastics, appliances, Styrofoam, ink cartridges, lamps, icepacks, vermiculite, electronic waste and CRTs from the labs during an all week purging event.

The two new pilot recycling programs started last year have been a success. EH&S and Grounds Services have collected several boxes of Kimberly Clark Glove Nitrile Gloves and are close to shipping the first pallet of boxes to be recycled. The mercury thermometer exchange program that was initiated last year has since collected 197 mercury thermometers and replaced them with 43 alcohol filled thermometers. EH&S has not been called out to clean up a mercury spill from a thermometer, since the program began.

HAZ-9A: Construction road closure procedures.

Responsible Unit: PP&C

Status: Completed - Ongoing

Description of Status for 2013-14

PP&C's template for Division 1 of the construction contract includes the requirements specified in the mitigation.

HAZ-9B: Test and update EOP.

Responsible Unit: Fire Dept

Status: Completed - Ongoing

Description of Status for 2013-14

The Campus Emergency Response Plan can be viewed at <http://emergency.ucsc.edu/emergency-management/plans/ucsc-emergency-response-plan.pdf>. No update to the plan was completed in 2013-14. The plan was tested in 2013-14

HAZ-9C: EOPs for 2300 Delaware and north campus.

Responsible Unit: Fire Dept

Status: Completed - Ongoing

Description of Status for 2013-14

Construction of the north loop road has not begun. Renovation of a portion of Building C at 2300 Delaware was completed in summer 2011. The Campus Emergency Response Plan covers all UC Santa Cruz facilities, including 2300 Delaware.

HAZ-9D: Secondary emergency egress route for north campus.

Responsible Unit: PP&C

Status: Not Triggered

Description of Status for 2013-14

North campus development was not under construction during 2012-13.

HYD-2A : Construction site controls, sites less than 1 acre.

Responsible Unit: PP&C

Status: Completed - Ongoing

Description of Status for 2013-14

This mitigation is implemented through the Campus Storm Water Management Program, UCSC division 1 construction specifications section 01 57 23-Storm Water Pollution Control, construction contract documents, and storm water inspection.

HYD-2B: Erosion controls for grading on hillsides.

Responsible Unit: PP&C

Status: Completed - Ongoing

Description of Status for 2013-14

the State General Construction Permit requires sediment control measures to be included in the Storm Water Pollution Prevention Plan which must be prepared for all projects disturbing more than 1 acre of land. Sediment control measures are included in the Erosion and Sediment Control Standards for Projects Under One Acre.

HYD-3A-PP: Signs and public education about importance of staying on paved roads and approved paths.

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2013-14

No new signs were installed or public education by Site Stewardship or Grounds. Existing signs and fences maintained.

HYD-3A-PPC: Signs and public education about importance of staying on paved roads and approved paths.

Responsible Unit: PP&C

Status: Completed - Ongoing

Description of Status for 2013-14

Both the Upper Campus Map (downloadable PDF available at maps.ucsc.edu) and the Campus Walking Map (hardcopy brochure distributed to all new students) contain the following text: "Please stay on roads or established trails. The creation of unofficial pathways can destroy both natural groundcover and the underlying soil." Large versions of the Campus Walking Map, which include this text, are distributed to Resident Assistance for posting on residence hall bulletin boards.

HYD-3B-PP : Erosion control measures for fire roads.

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2013-14

Erosion damage to water bars was inspected and repaired and culverts were cleaned. Silt fences on the upper campus fire roads were cleaned and repaired/replaced. Annual road maintenance was also done on the fire roads.

HYD-3D: Low-impact development measures for new development.

Responsible Unit: PP&C

Status: Completed - Ongoing

Description of Status for 2013-14

These requirements are implemented as part of UCSC's Storm Water Management Program, Post Construction Requirements (PCR). The PCR's have been included in the Campus Standards.

HYD-5C: Aquifer monitoring.

Responsible Unit: PP&C

Status: Not Triggered

Description of Status for 2013-14

Campus did not use the well to supply water in the reporting year. Therefore, this mitigation has not been triggered.

NOIS-1 : Construction noise controls.

Responsible Unit: PP&C

Status: Completed - Ongoing

Description of Status for 2013-14

PP&C's template for Division 1 of the construction contract includes this requirement. For each project, the Project Manager reviews the template, select the applicable measures, and will continue to report on the selected measures and their implementation in the project mitigation monitoring report.

NOIS-2: Contractors use City-designated truck routes.

Responsible Unit: PP&C

Status: Completed - Ongoing

Description of Status for 2013-14

PP&C's template for Division 1 of the construction contract includes this requirement. For each project, the Project Manager reviews the template, select the applicable measures, and will continue to report on the selected measures and their implementation in the project mitigation monitoring report.

POP-3A: Campus housing accommodate 50 percent of undergraduates and 25 percent of graduate students.

Responsible Unit: CUHS

Status: Completed - Ongoing

Description of Status for 2013-14

The total housing capacity in 2013-14 exceeded 50% of undergraduate student enrollment and 25% of graduate student enrollment.

POP-3B: Housing collaboration study.

Responsible Unit: CUHS

Status: Completed - No Further Action

Description of Status for 2013-14

Campus Housing and Market Study Report was completed in September 2008 by consultant group Brailsford and Dunlavey. This mitigation is complete and no further action is required.

POP-3C: Housing collaboration study.

Responsible Unit: CUHS

Status: Completed - Ongoing

Description of Status for 2013-14

The Campus completed market studies for employees and students in July 2014.

REC-2C-PP : Discourage illegal bicycle use on Pogonip trails.

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2013-14

Four signs were placed in 2006, advising the population they are leaving the University, entering Pogonip and notified to adhere to City Park regulations. The signs are on Rincon Rd., U-Con trail, Coolidge Rd. lookout, and Spring Road / trail. The sign and fences were inspected on 4/11/14. No problems or issues were found.

REC-2C-TAPS: Discourage illegal bicycle use on Pogonip trails.

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2013-14

The Campus Bike Plan was completed in Fall 2008 and approved as an amendment to the City Bike Plan by the Santa Cruz City Council in December 2008. The campus bike map in the Bike Plan shows the campus/Pogonip boundary but does not show the Pogonip rules regarding bicycle use. The next update to the campus bike map that is posted on the TAPS website or printed will include these rules.

REC-2D-PP: Coordinate with City on volunteer trail maintenance days.

Responsible Unit: Physical Plant

Status: In Progress

Description of Status for 2013-14

There were no volunteer trail maintenance days planned with the City due to Grounds Services staffing reduction of hours for Site Stewardship activities.

REC-4: Recreational facilities available to public

Responsible Unit: OPERS

Status: Completed - Ongoing

Description of Status for 2013-14

Recreational amenities are available for public use. These include the track, outdoor exercise spaces (Park Course) and fields located at the East Field House complex. The public can also purchase a community Wellness Card to access all other facilities at OPERS (pool, Wellness Center, etc.). Information about public access to our facilities is available on the OPERS website:

<http://opers1.ucsc.edu/Memberships/MembershipCards.html>

TRA-1: Monitoring and improve campus intersections.

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2013-14

Turning movement counts were conducted at Hagar/McLaughlin and Heller/Meyer intersections during Fall 2010. The data was not processed through the City of Santa Cruz's TRAFFIX model to calculate current level of service. However, the average daily number of weekday vehicle trips to/from campus was lower in 2013-14 than the LRDP EIR baseline (2003-04).

TRA-2A-TAPS: Monitor and contribute to improvements to City intersections.

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2013-14

Turning movement counts were conducted at 35 locations on- and off-campus in Fall 2010. Two weeks of traffic volume data were collected during November 2013 and May 2014 at 12 on-campus and 5-8 off-campus locations. The off-campus locations included three locations at the Marine Science Campus, two at the entrances to the 2300 Delaware facility, and the three off-campus legs of the Bay/High intersection (Spring 2014). Annual school-term weekday average daily trips (ADTs) through the two campus entrances totaled 19,623.

The Campus has fulfilled the requirement to contribute its fair share of the cost of intersection improvements by making payments to the City for projected new 2005 LRDP-related trips through 2020, under the 2008 Comprehensive Settlement Agreement.

TRA-2B: Expand TDM programs.

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2013-14

UCSC's TDM programs continued to help reduce traffic volumes to/from campus during 2013-14. The Commuter Vanpool program operated on 23 routes using 12-passenger vans serving more than 240 participants. The Zipcar car-sharing program, currently in its 7th year at UCSC, grew in popularity and utilization, with 11 cars accommodating approximately 1,600 active members and average 24/7 utilization

exceeding 32%. Zimride, an on-line ridesharing application, gained more than 1,700 new users during the 2013-14 fiscal year.

The Spring 2014 Mode Split Study indicates that 62.2% of all person-trips to the campus are made via alternative transportation. Primary among these was SCMTD public transit (23.3%), followed by Multi-Occupant Vehicles (22.8%), and “Other TDM Services” including Commuter Vanpools, the Bike Shuttle, and some Day Shuttle ridership (12.6%). Biking and walking comprise 3.2% and 0.6%, respectively. Single Occupant Autos account for only 34.0% of all person-trips. The remaining 3.9% of trips were by Service/Construction/Delivery vehicles and motorcycles.

Traffic volumes through the two campus entrances in the Fall quarter rose 2.4% from the previous reporting year (19,463 ADT in Fall 2013 vs. 19,006 ADT in Fall 2012) while Spring quarter counts rose 0.3% (19,782 ADT in Spring 2014 vs. 19,413 in Spring 2013).

TRA-3B: Parking monitoring and construction.

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2013-14

No changes were made to the parking zone definitions during 2013-14. The Spring 2014 Parking Utilization Survey is on file at UCSC Physical Planning & Construction.

Projects underway or commencing in the near future that generate temporary or permanent parking impacts include:

- Merrill Housing Renovations continued to generate temporary impacts on moderately utilized parking lots near Merrill and Crown Colleges during 2013-14;
- In-Fill Housing Repair projects will impact parking at Kresge College, while restricting some pedestrian access routes at Cowell College.
- Storm water management projects continued to generate temporary impacts on several locations during 2013-14, with major impacts to Lots 109 and 110 in the Cowell/Stevenson area with the “Gully G” project commencing in June 2014 and continuing into Winter 2015.

Based on Spring 2014 parking utilization survey, adequate parking capacity exists in underutilized campus lots to accommodate the increase resulting from loss of parking supply plus projected growth in parking demand. However, these project create substantial inconvenience to regular commuter parking and require additional planning for event parking.

Revisions to the CEQA Guidelines published in 2010 eliminate the provision of adequate parking as a significance criterion for traffic impacts, with the intent that use of alternative transportation is more protective of environmental quality. The Campus includes facilities supportive of alternative transportation in each of its new projects, rather than increased close-in parking.

TRA-3C: Parking management systems.

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2013-14

Use of one mobile changeable message sign has helped direct visitors to specific areas of campus during major campus events.

The campus completed installation of new street name signs throughout the campus in Summer 2013—a critical step toward improving on-campus wayfinding.

Numerous campus staff are working to improve the quality and availability of web-based campus maps, including updates to Google Maps. Additionally, in Spring 2012 TAPS implemented a new “smart-card” system for use with campus parking meters and pay stations to provide improved customer service (unused time returned to user’s card at end of stay) with lower operating costs (reduced cash handling and coin processing).

TAPS is also in the process of identifying and procuring a new Point-Of-Sale/Parking Management System for the campus. An early phase of this effort under consideration for implementation during 2015 may include the purchase and implementation of networked, hand-held units for sale of Event parking permits in the field.

TRA-4A: Monitor transit efficiency.

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2013-14

While on-campus traffic volumes have remained constant or declined (as indicated by semi-annual hose counts), large numbers of pedestrians crossing roadways within the central campus have resulted in longer transit cycle times during class break periods. Although Campus Transit and SCMTD buses continue to provide adequate transit cycle times, in Spring 2010 TAPS implemented a new “Traffic Control” program at selected crosswalks to manage pedestrian and vehicle traffic during class breaks. Studies conducted during Spring 2011 indicate a 20% improvement in Day Shuttle travel times between Oakes College and Cowell College when Traffic Control measures are in place: a 15-minute trip dropped to only 12-minutes with Traffic Control staff in place at three locations. The Traffic Control program has expanded to include five intersections. TAPS has tested two automated vehicle locations systems for use on Campus Transit vehicles: one developed by graduate students in the School of Engineering intended for public use via a web browser or smartphone, another GPS-based system providing location, speed and vehicle diagnostics in real time. Testing of both systems was completed during 2012-13, with full implementation planned for 2014-15. SCMTD ridership dropped approximately 0.5% during 2013-14.

TRA-4B: Improve transit efficiency.

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2013-14

As noted under TR-4A, UCSC’s SCMTD ridership recovered during 2012-13, with a 5.5% increase—making up for the 4.9% decline resulting from the 8% service reduction in place between September 2011 and April 2012. However, UCSC’s SCMTD ridership declined by 0.5% during 2013-14.

UCSC began operating Night Owl service in September 2011 to maintain late-night transit access between Downtown Santa Cruz and the campus. Night Owl ridership during 2013-14 totaled more than 39,400 passengers.

In addition to participating in service reduction planning, TAPS staff also continued to work with representatives of the City of Santa Cruz, SCMTD and community

representatives on a Public Transportation Alternatives work group as required under the 2008 Comprehensive Settlement Agreement. TAPS staff served on two additional technical advisory work groups concerning public transit: an AMBAG project to develop a Public Transit element of the regional traffic model; and a sustainable transportation effort (STARS) under the SCCRTC.

TRA-4D-PB : Coordinate roadway and circulation improvements with pace of campus development

Responsible Unit: P&B

Status: Completed - Ongoing

Description of Status for 2013-14

Monitored under TRA-4D-TAPS

TRA-4D-TAPS: Campus roadway and circulation improvements.

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2013-14

No new roadway or circulation improvements were implemented during 2013-14. CEQA documents completed during the reporting period (Initial Study/Mitigated Negative Declaration for the Telecommunications Infrastructure Improvements Phase A) did not identify any roadway or circulation improvements triggered by the proposed development.

TRA-4E: Bicycle circulation improvements.

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2013-14

The UCSC Bike Plan was finalized during Fall 2008 and approved (as an amendment to the City of Santa Cruz Bike Plan) by the City Council in December 2008. The plan may be downloaded at: <http://www2.ucsc.edu/taps/bicycleprograms.html>. An update of this plan was anticipated during 2012-13, in conjunction with the City's Bike Plan update; however, the City postponed their update until at least 2014-15.

An uphill Class II bike lane was constructed along Chinquapin Drive between McLaughlin Drive and Crown College in Summer 2009. An uphill Class II bike lane was added to Heller Drive during a two-phase roadway rehabilitation project. The section between Empire Grade and College Eight was completed in Summer 2009, and the section between College Eight and Core West Parking Structure entrance road was completed in Summer 2011. While not involving additional Class II bike lanes, three campus roadways were resurfaced during Summer 2014: Heller Drive between College Eight and Meyer Drive, Hagar Drive between OPERS and McLaughlin Drive, and Oakes Road. All three benefit bicyclists by improving the condition of the road surface.

TRA-4F: Wayfinding systems.

Responsible Unit: TAPS

Status: In Progress

Description of Status for 2013-14

Preliminary work for a Campus Pedestrian Plan started in Winter 2011.

The Campus has identified the following elements of an improved way-finding system:

- Standardized street names and signage;
- Consistent sign standards for streets, buildings, and supporting infrastructure;
- A hierarchy of area-based directional systems, including but not limited to “You Are Here” informational kiosks at key locations;
- Revisions and updates to Google Maps to reflect both new street names and field-checking.
- Agreement on standards and procedures for defining new street addresses for all campus facilities to better accommodate emergency response wayfinding.

In 2010-11, preliminary work was started on modifying the campus signage standards to improve wayfinding, including review and approval of names for all on-campus streets and roadways. Funding was approved to fabricate and install new road signage following adoption of revised official street names, and a new road sign standard. Installation of the new street signs began in Spring 2012 and was completed during 2012-13. Plans for an improved street address system were developed for facilities throughout the main campus during 2013-14, but full implementation is not expected until 2015.

TRA-5B: Special-event parking management.

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2013-14

The campus hosted 1,426 events during 2013-14 attracting approximately 277,000 attendees. This represents a 44% increase in the number of events and a 13% increase in attendance since 2012-13.

Event sponsors are not currently required to list their events in the online campus calendar so this number may not include all events on campus. Work began in 2007-08 to improve the campus calendar, making it easier to use, and triggering notification of the TAPS Event Parking Office for events over a certain size. Several work groups continue to meet to plan on-going major events (Commencement, Fall Move-In) and to address access impacts associated with campus construction and maintenance projects. During the 2013-14 fiscal year, campus events included the first “Edge of Eden” concert on the East Field on a Saturday in May. Early planning also began in advance of UCSC’s 50th Anniversary beginning in January 2015 and continuing for the next 18 months.

TRA-5C: On-line parking permit sales and information.

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2013-14

During 2013-14 TAPS and ITS staff maintained an on-line Guest Parking Permit program for departmental use by the Arts Division. TAPS is also researching new communications tools for notifying permit purchasers when and where their parking permits are available for pick-up at the start of each academic quarter.

Discussions have continued with Parking Enforcement, University Police, ITS, and Purchasing regarding identification, acquisition and implementation of a new integrated

Point Of Sale (POS) and Parking Management system. While discussions are underway to allow systemwide adoption of T2 Systems (a vendor), UCSC continues to review other vendors. A first phase will likely include improved an enhanced Citation/Enforcement module that allows hand-held units to interface with pay-station equipment, as well as acquisition of new hand-held permit sales devices for use with Event Parking activities.

TRA-5D: Campus Events Calendar System for traffic and parking management.

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2013-14

Improvements have been made to the Campus Events Calendar system that a) improve the stability of the software and operating system, and b) enhance the user interface for visitors. As these “Phase 1” improvements have been developed, implemented and tested, additional improvements have been identified for “Phase 2” that enhance the user interface and effectiveness for event management staff and sponsors. No progress was made on “Phase 2” during 2013-14

Phase 1 improvements have incorporated a system that notifies TAPS of the proposed scheduling of large events on the Campus Calendar. However, as noted elsewhere, the campus administration does not yet require sponsors to post their events to the Calendar system. Additional work is underway to enhance the collection and management of event-related information using both the Campus Calendar and TAPS’ Events Parking Management website.

TAPS Events staff have devised traffic and parking management plans on an as-needed basis for large events (including Move-In and Commencement), as well as for occurrences of multiple, simultaneous event of moderate size. These have included: Move-In, Commencement, Spring Spotlight, an annual Scholarship Dinner, and Reunion Weekend.

TRA-6B-PB : Pay fair share of local cost of improvements to freeway facilities.

Responsible Unit: P&B

Status: Not Triggered

Description of Status for 2013-14

Monitored under TRA-6B-TAPS

TRA-6B-TAPS: Fair share contribution to freeway facility improvements.

Responsible Unit: TAPS

Status: Not Triggered

Description of Status for 2013-14

There is no mechanism within Santa Cruz County for establishing and collecting fair share payments from projects that contribute to the need for freeway improvements. Therefore, this mitigation commitment has not been triggered. This mitigation was not required in 2013-14.

UTIL-4: Improve recycling and waste reduction.

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2013-14

Efforts to recover recyclables at student move in and move out continue. Grounds Services Maintained a CRV License and increased CRV tonnage hauled. CRV Materials

are recovered using a sorting line. Substantial efforts are being made to develop a collection system for compostable materials. A pilot project was initiated in McHenry Library with collection systems for paper, containers, compost, and trash. The diversion percentage as reported to UCOP for the entire campus was 52% without construction waste and 55% with construction. There were no major capital projects in construction this period.

UTIL-9A-CUHS: Water efficient washing machines in student housing.

Responsible Unit: CUHS

Status: Completed - Ongoing

Description of Status for 2013-14

The University entered into a Laundry Services Agreement on July 1, 2009 for a term of three years, which has been extended through June 2015. Under the agreement, equipment specifications require that all machines are be water saving and energy efficient and certified by the Consortium on Energy Efficiency to have a water factor of 5.5 or less and a Modified Energy Factor (MEF) of 2.15 or greater.

UTIL-9A-OPERS: Water-efficient washing machines.

Responsible Unit: OPERS

Status: Not Triggered

Description of Status for 2013-14

OPERS did not purchase washing machines in the past year.

UTIL-9A-PP: Leak detection and repair.

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2013-14

The Campus' procedures for leak detection have not changed in the past year. On a monthly basis, the Campus Energy Manager provides a chart showing water usage from all the points where city water entering Campus. The Campus water specialist and plumbing staff compare the usage on a month by month basis. If there is an unexplained increase in any of the zones a visual inspection of the zone is conducted. If Campus plumbers cannot locate the leak, a leak detection contractor is called in to do an electronic sounding survey. After a leak is found, repairs are immediately scheduled and completed by an underground utility repair contractor.

The Campus is pilot testing use of the Badger water metering cellular end point system for alarming of laterals for continuous use water services.

UTIL-9B-PP: Pilot test high-efficiency plumbing fixtures.

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2013-14

See UTIL-9B-PP&C

UTIL-9B-PPC: Pilot test high-efficiency plumbing fixtures

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2013-14

In previous years, the Campus has tested a number of low-flow fixtures. Campus Standards now include 1.5 GPM shower heads, dual flush valves (1.1GPF up & 1.6GPF down) for flush valve type/wall mount toilets and 1/8-gpf urinals. No additional pilot tests were conducted in 2013-14.

UTIL-9C: Water conservation education program for campus residents.

Responsible Unit: CUHS

Status: Completed - Ongoing

Description of Status for 2013-14

CHES has provided educational materials to residents including posters, table-tents, flyers and cling-on conservation reminders installed in bathrooms over the last year. The Conservation coordinator has held conservation tabling events at colleges and all-campus recreational events and new-student orientations. The Conservation Coordinator worked with the Student Environmental Center to roll out the “Drop Your Own Drip” water conservation residential competition. The CHES Facilities Resource Conservation, Training, and Safety Coordinator, has been designated as a water conservation educator.

UTIL-9D: Campus water audit.

Responsible Unit: PP&C

Status: Completed - No Further Action

Description of Status for 2013-14

Mitigation was completed in 2007.

UTIL-9E CUHS: Implement water audit recommendations.

Responsible Unit: CUHS

Status: Completed - No Further Action

Description of Status for 2013-14

Completed in 2010-11.

UTIL-9E-PP : Implement water audit recommendations.

Responsible Unit: Physical Plant

Status: Completed - No Further Action

Description of Status for 2013-14

Completed in 2010-11

UTIL-9F: Update water audit

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2013-14

In 2012-13, the Campus began work on an update of the 2007 Campus water use efficiency study, by assessing the results of the “high-priority” projects identified in the 2007 study and other water-use reduction projects that the Campus has implemented since 2007, and compiling a list of potential future projects. In 2013-14, a Water Working Group that included representatives from all Campus units with some responsibility for water use, compiled a list of proposed water conservation measures with estimates of water savings and cost. The Campus has provided funding for a number of these measures, to be implemented over the next year. These include: additional restroom fixture retrofits, additional sub-meters for irrigation connections and other irrigation system improvements, a pilot study of a water-saving product for autoclaves, water-

saving improvements to the mechanical and seawater systems at Long Marine Lab, and removal of turf, and an evaluation of the irrigation system at the Arboretum. In addition, a team of students working in the Sustainability Office began a survey of restrooms in all State-supported buildings to identify remaining high-use fixtures, leaks, and fixtures in need of repair. The students generate work orders for Physical Plant for leaks and other malfunctions. The survey is to be completed in 2014-15.

UTIL-9G: Water re-use feasibility study.

Responsible Unit: PP&C

Status: Completed - No Further Action

Description of Status for 2013-14

The water re-use study was completed in May 2009. No further action is required.

UTIL-9H-CUHS: Retrofit plumbing fixtures in student housing within 5 years following approval of 2005 LRDP.

Responsible Unit: CUHS

Status: In Progress

Description of Status for 2013-14

CHES has completed Flushometer upgrades to facilities in Merrill College Housing areas. Replacement of toilets at Kresge and Oakes (Apartments) cannot be completed without major code-required accessibility improvements. Replacement of toilets at Kresge College will be included in an upcoming major capital renewal project, the schedule of which has not yet been determined. CHES is currently developing a plan for replacement of toilets at Oakes College Apartments as part of a capital renewal project that will include code-required accessibility improvements.

UTIL-9I: Water conservation in drought emergency

Responsible Unit: Arboretum

Status: Completed - Ongoing

Description of Status for 2013-14

In January 2014, in anticipation of a water shortage declaration, the campus formed a staff working group to renew and implement emergency water-reduction measures and develop compliance monitoring through detailed reporting. A Stage 3 Water Shortage Emergency was declared by the Santa Cruz City Council in February 2014. Under Stage 3, UCSC has a peak season water use reduction target of 24 percent.

The working group includes staff from campus units that provide educational material and monitor and manage indoor and outdoor water use: Physical Plant, including Grounds Services; Colleges, Housing, and Educational Services (CHES); the Center for Agroecology and Sustainable Food Systems (CASFS); Sustainability Office; Student Environmental Center; the Arboretum; the Office of Physical Education and Recreation and Sports (OPERS), Physical Planning Construction; and Marine Science Campus - Long Marine Lab. The working group compiled a list of immediate actions that each unit planned to take to reduce water use in compliance with the City's water rationing program. Monthly meetings were scheduled to monitor the effectiveness of the campus' actions and to identify additional actions if necessary.

The Campus developed monthly water use targets for specific use categories (residential, mechanical, laboratory, landscape irrigation, etc.). A use reduction target for each category was created in order to achieve the overall campus reduction goal of 24 percent.

Physical Plant provides monthly reports in several formats that include the target and actual use for each category and a history of actual usage for each building by month in tabular and graphic formats. This reporting was used to focus conservation activities if targets are not realized.

The Campus achieved a 26 percent reduction from its baseline for the months of May through October.

Below are some specific measures that have been completed or are on-going operations:

- A water conservation website, which includes information about the shortage emergency and water conservation tips
- Messages from the Chancellor sent to the Campus community in February and May about the importance of reducing water use
- Reducing or eliminating irrigation of landscaping and recreational fields
- The Fix-it system (an online, customer-generated request for facilities services) is reviewed at least once per day to identify issues involving potential water loss and prioritize them for repair
- HVAC crew alerted to need to monitoring equipment for leaks
- Reduction in tennis court washings
- Distribution of water use educational materials for campus residents
- Tabling by Residential Advisers and other student staff members
- Water conservation education to summer conference guests
- Mirror clings above restroom sinks
- 5-minute timers installed in showers in student residences
- Educational/cautionary posters in laundry facilities, dining halls, mail rooms, and other student high-traffic areas
- Dual-flush valve handles installed on toilets in women's restrooms at the University Center and at the Crown/Merrill and Nine/Ten Dining Halls
- Low flow aerators installed on all kitchen and restroom facets as of 2/4/2014.
- Adjustments to pump operations at Marine Science Campus
- Housing Facilities staff inspecting low flow flush valves and tank toilets for correct operation and repairing or replacing as necessary
- In addition to following City reduction guidelines and standard CASFS water conservation practices, CASFS also reduced crop production by 20%