

UC Santa Cruz 2005 LRDP EIR

Annual Mitigation Monitoring Report, 2010-11

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://lrdp.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 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 2010-11 Mitigation Activities

General Campus Mitigation Measures

In 2010-11, 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.

Nine of these commitments were completed during the 2010-11 reporting period or in a previous year and require no further action in future years, 60 ongoing mitigation commitments were implemented during the 2010-11 reporting year but require further action in future years, four were in progress but not completed during the reporting period, and 12 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://lrpd.ucsc.edu/MonitoringReports/MMP_Table1_2010-11.pdf] lists all of the general campus mitigations and their status for the 2010-11 reporting year. A complete description of general campus mitigation activities conducted during this reporting year is presented below, under the heading *Complete Description of 2010-11 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:

LRDP Mitigation AIR-5B requires that, 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, a toxic air contaminant, for the Central Plant emergency generator and the cogeneration engine, and re-evaluate the health risk that could result from emissions of toxic air contaminants under the 2005 LRDP. If the estimated risk exceeds the significance threshold established by the Monterey Bay Unified Air Pollution Control District, the Campus must 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 catalytic oxidizer or other emissions controls. The Campus has not been able to re-evaluate the health risk because there is currently no accepted method for interpreting acrolein source test data. A project to replace the existing cogeneration engine with a combustion steam turbine, which would significantly reduce emissions of toxic air contaminants, was in design in 2010-11. The project design and budget were approved in December 2011, and the Campus plans to begin project construction in September 2012.

LRDP Mitigation BIO-15 requires that 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. The Arboretum has installed temporary plastic fencing designed to allow passage of small mammals, such as raccoons, but to exclude deer and wild pigs. The Arboretum is raising funds for permanent fencing, which will be designed to meet the specifications of the mitigation measure.

LRDP Mitigation TRA-4F requires that the Campus implement integrated transit, bicycle and pedestrian way-finding systems, including a pedestrian plan, on the main campus. 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. Preliminary work for a Campus Pedestrian Plan started in Winter 2011.

LRDP Mitigation TRA-5C requires the Campus to 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. Directional maps and the Campus Calendar of events are available on-line. TAPS and ITS staff have begun development of an on-line Guest Parking Permit for departmental use, with preliminary implementation slated for Fall 2011. 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. Additionally, TAPS is considering the feasibility of shifting from permit-based to license plate-based parking management systems as it investigates replacement of the current Point Of Sale (POS) and Parking Enforcement systems during the next two years.

Project Mitigation Monitoring

In 2010-11, the Campus monitored project-specific LRDP EIR mitigation measures for the following projects, which were in planning, design or construction:

Infrastructure Improvements, Phase 1. This project, which includes improvements to the Campus domestic water system, construction of a new cooling tower, and improvements to the storm water drainage system, was approved in March 2007. Construction of the domestic water system improvements was completed in the summer of 2008. Construction of the cooling tower began in fall 2008; the campus anticipates the new tower will be completed in 2011. Construction of the Phase 1 stormwater improvements began in summer 2009 and was completed in fall 2010.

Infrastructure Improvements, Phase 2. Phase 2, which includes improvements to the Campus electrical distribution system and the heating hot water system, and additional storm water drainage improvements, was approved in July 2008. The project was on hold during 2010-11 due to a delay in funding.

Biomedical Sciences Facility. This project was approved in January 2007 and construction began in December 2008. Construction is expected to be completed in 2012.

Cowell Student Health Center Expansion and Renovation. The project was approved in January 2008. Construction was completed in fall 2010.

Porter College House A Seismic, Capital Renewal and Expansion. The Porter College House A Project was approved in May 2009 and construction began in summer 2009. Construction was completed in fall 2010.

East Campus Infill Project. The East Campus Infill Project was approved in July 2009. This project is on hold and construction has not begun.

2300 Delaware Project. The 2300 Delaware Project was approved in February 2007. Under this project, the Campus is redeveloping Building C in phases. Mitigations for the 2300 Delaware Project are implemented and monitored on an ongoing basis as general campus mitigations and in conjunction with specific redevelopment activities. The first phase of redevelopment, the Thin Films and Materials Lab, was completed in 2011.

In 2010-11, the Campus also continued to monitor three projects that were approved under the 1988 LRDP:

McHenry Library. The McHenry Library Project was approved in September 2004. Phase 1, construction of an addition to the existing building, was completed in 2008. Construction of Phase 2, seismic retrofit and renovation of the existing building, was completed in spring 2011.

Digital Arts Facility. The Digital Arts Facility was approved in September 2005. Construction was completed in summer 2010.

Ranch View Terrace Faculty and Staff Housing (RVT). The RVT project was approved in June 2004. Phase 1, which consists of forty-five single-family houses, has been completed. Construction of Phase 2 has not yet been scheduled.

Table 2, *Project Implementation of LRDP EIR Mitigation Measures* [http://lrdp.ucsc.edu/MonitoringReports/MMP_Table2_2010-11.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_2010-11.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 2010-11 General Campus Mitigation Activities

AES-5D: Continue Site Stewardship Program.

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2010-11

The Site Stewardship Program (SSP) was continued in 2010-11 by Grounds Services, Physical Plant. Oversight responsibilities were assigned as additional duties to the Assistant Superintendent of landscape management. One campus gardener with a background in native plant identification, propagation and ecological restoration was assigned field work responsibilities 35% of his time. He worked with multiple student interns and volunteers to survey and monitor and to complete restoration projects.

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

Responsible Unit: PP&C

Status: Completed - Ongoing

Description of Status for 2010-11

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 required for safety only and that decorative lighting 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; for safety reasons, forest areas are to be illuminated with non-directional fixtures that light the surrounding area.

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

Responsible Unit: OPERS

Status: Not Triggered

Description of Status for 2010-11

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 2010-11

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 2010-11

Currently each project manager is individually adding the applicable mitigation measures to Division 1, and implementation is documented in the project mitigation monitoring report. PP&C has drafted an update of the Division 1 template that includes these measures. For each project, the Project Manager will review the template, select the applicable measures, and will continue to report 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 2010-11

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

Responsible Unit: PP&C

Status: Completed - No Further Action

Description of Status for 2010-11

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 2010-11

The generators are tested per the mitigation measure and Physical Plant is abiding by Table 4.3-22 from the LRDP EIR. See preventative maintenance records as needed.

AIR-5B-PP: Cogeneration system emissions

Responsible Unit: Physical Plant

Status: In Progress

Description of Status for 2010-11

The cogeneration system has not been replaced. An acrolein test was completed in January 2010 as part of the annual source test. Test reports were sent to the Monterey Unified Air Pollution Control District and EH&S has been notified. The Campus has not recalculated the hazard index because there is currently no accepted method for estimating health risks due to acrolein. A project to replace the existing cogeneration system with a new system with lower emissions was in design in 2010-11. The project design and budget were approved in December 2011 and the Campus plans to begin construction in fall 2012.

AIR-6: Minimize construction air pollutant emissions.

Responsible Unit: PP&C

Status: Completed - Ongoing

Description of Status for 2010-11

Currently each project manager is individually adding the applicable mitigation measures to Division 1 and reporting on their implementation in the project mitigation monitoring report. PP&C has drafted an update of the Division 1 template that includes these measures. For each project, the Project Manager will review the template, select the applicable measures, and will continue to report 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 2010-11

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: In Progress

Description of Status for 2010-11

During February 2008, the Arboretum installed temporary plastic deer fencing around the Arboretum/Natural Reserve Jointly managed area where the California Province Gardens are being developed. However, deer, bobcats, coyotes, skunks, raccoons, and other small mammals are able to move freely in and out of the fenced areas. The Arboretum is raising funds for permanent fencing that will comply with the mitigation requirements.

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

Responsible Unit: Police

Status: Completed - Ongoing

Description of Status for 2010-11

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 2010-11

During December 2005, Physical Plant 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. This amendment was based on scientific findings that the use of recreational trails is beneficial in maintaining the bare ground habitat important to OTB. The temporary fences were discontinued in Marshall Field, as well as in the grasslands that are managed under the HCP. In previous years, the patrolling by Physical Plant was to maintain the temporary OTB fences and signs. In the absence of these temporary measures, formal Physical Plant 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 2010-11

Mitigation was completed in 2006-07. UCSC staff consulted informally with USFWS staff, who said that agency had no concerns with any fencing in the area with respect to special-status species identified under the Endangered Species Act.

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

Responsible Unit: CNR

Status: Completed - Ongoing

Description of Status for 2010-11

This mitigation was completed in 2009. An informational sign about cave species was installed at the cave entrance. The sign was still in place in 2010-11. The CNR website includes information on the cave species and the threat posed to them by recreational use of the caves. The web page is at: <http://ucreserve.ucsc.edu/UCSCCNR/caves.html>.

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

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2010-11

An informational sign about cave species has been installed at the cave entrance. Empire Cave is on the Campus Natural Reserve and is the responsibility of the Campus Natural Reserve. CNR checked the sign this year and it is still there, maintained, and legible.

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

Responsible Unit: PP&C

Status: Completed - Ongoing

Description of Status for 2010-11

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 has not yet responded to UCSC's request.

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

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2010-11

A training was conducted on 1/26/11 by Sally Morgan, Sr. Environmental Planner, PP&C, who is a Registered Professional Archaeologist. Thirty six staff attended.

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

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2010-11

Grounds Services uses integrated pest management (IPM) practices for routine maintenance that involve only a very few 'spot sprayings' of low toxicity pesticides. During this period, one broadcast herbicide spraying of an 18,000 square foot area was conducted to remove existing turf for a water conservation landscape renovation project.

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

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2010-11

UC Santa Cruz Grounds Services provided trash and litter collection services for a container on the east side of Antonelli Pond. In the fall of 2010, Grounds Services also began the same service for a trash can on the west side of Antonelli Pond per agreement with Land Trust of Santa Cruz. This reduced the number of trips a Land Trust steward had to make from Corralitos to check the site. This arrangement continued in 2011.

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 2010-11

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.

UCSC Grounds cleared and removed brush again in August 2011. Grounds Services also supplied eighty yards of mulch and supervision for volunteers to mulch the east trail in August 2011.

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

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2010-11

The Land Trust of Santa Cruz County and Save the Frogs held an event at Antonelli Pond on March 6, 2011. UCSC Grounds Services advertised the event through the UCSC Site Stewardship Program volunteer email list and other campus newsletters. We had three volunteers participate in the event. UCSC also provided a tractor and trucks to remove the brush piles.

UCSC Grounds Services also coordinated with the Land Trust of Santa Cruz County manager Lynn Overtree regarding a volunteer day on August 27, 2011. UCSC provided eighty yards of mulch and supervision for a volunteer crew to spread mulch for a trail

restoration project. The volunteer day occurred in August, which was before UCSC students return to campus. Volunteer days are seasonally restricted due to potential CRLF activity during rainy months from October to May.

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

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2010-11

UCSC paid the City of Santa Cruz \$419,000 in 2008-09 to mitigate 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 has made an additional payment to mitigate trips related to the Thin Films and Materials Lab Project, which renovated a portion of Building C in 2010-11.

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

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2010-11

A commuter survey was conducted in Spring 2011 that garnered 90 respondents from employees occupying westside facilities, including 2300 Delaware. While approximately 25% indicated they commute in single-occupant vehicles, approximately 10% commute by SCMTD transit, 6% by carpool or vanpool, and 10% by bicycle.

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.

Additionally, two bicycle safety classes were held during 2010-11 at the site.

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

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2010-11

Parking utilization surveys were conducted mid-morning and mid-afternoon on five weekdays in Spring 2011, finding an overall utilization rate of 60.9%.

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

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2010-11

SCMTD continued to provide supplemental Route 20D transit service via the UCSC service agreement during 2010-11. While SCMTD has planned for service reductions throughout Santa Cruz County in September 2011, UCSC's supplemental Route 20D will continue to operate through 2011-12.

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

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2010-11

The irrigation system is responsive to daily weather data (RainMaster Evolutions Central Irrigation System), has an automated leak detection feature, and shuts down automatically if a leak is detected. 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.

During 2010-11, 18,000 square feet of existing turf were removed and replaced with wood chip mulch and sparsely planted California native shrubs and five Coast Live oak trees with a redesigned irrigation system. Irrigation was discontinued for an additional adjacent 10,000 square feet of turf in preparation for a future phase of landscape conversion.

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

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2010-11

Two evapotranspiration irrigation controllers with flow control sensors and radio communication to the central system were installed under contract to Grounds Services, 2006. A water conservation Landscape Plan was completed September 15, 2010. As described above under DA-UTIL-1A, Phase 1 of the plan, a mitigation for the first occupation of Building C, was implemented in 2010-11.

HAZ-10A: Annual/biennial building inspections

Responsible Unit: Fire Dept

Status: Completed - Ongoing

Description of Status for 2010-11

Inspections of buildings were conducted as specified in the mitigation. Documentation is maintained in the UCSC Fire Department records management system.

HAZ-10B : Develop and implement Vegetation Management Plan

Responsible Unit: Physical Plant

Status: Not Triggered

Description of Status for 2010-11

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

HAZ-10C : Wildland fire prevention signage.

Responsible Unit: Physical Plant

Status: Not Triggered

Description of Status for 2010-11

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 2010-11

Total hazardous chemical waste generated for FY10-11 from main campus was 53,313 pounds. This number does not include lead, asbestos or universal waste. The campus also disposed of nine gas cylinders in two shipments.

41.55 tons of universal waste was recycled last year. This number represents batteries, lamps and electronic waste handled by Physical Plant Recycling, Physical Plant Electric Shop and Receiving Services.

This year updates and educational outreach regarding air, water and waste were provided to the Lab Safety Representatives during the annual EH&S Expo. A new spill response training class was provided to 40 Physical Plant Grounds personnel.

Hazardous waste training classes are routinely offered and focus on the UCSC Waste Management website, where training participants learn how to navigate the site, find and use the fact sheets and the waste minimization web page, hazardous waste determination and classification guidelines, the online hazardous waste tracking system (OTP) and the campus recycling and disposal guide. Six hazardous waste training classes were offered during FY10-11. A total of 71 faculty, staff and students were trained. Additional training classes were offered to Physical Plant (50 members) during their monthly safety meeting and Dining and Housing Services (26 members).

HAZ-9A: Construction road closure procedures.

Responsible Unit: PP&C

Status: Completed - Ongoing

Description of Status for 2010-11

The Division 1 template for construction contracts includes the requirements specified in the mitigation.

HAZ-9B: Test and update EOP.

Responsible Unit: Fire Dept

Status: Completed - Ongoing

Description of Status for 2010-11

No updates were made in 2010-11. The EOP can be viewed at <http://emergency.ucsc.edu/plans>. The EOP was tested during actual events during 2010-11.

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

Responsible Unit: Fire Dept

Status: Completed - Ongoing

Description of Status for 2010-11

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 2010-11

North campus development was not under construction during 2010-11. Mitigation has not been triggered.

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

Responsible Unit: PP&C

Status: Completed - Ongoing

Description of Status for 2010-11

This mitigation is implemented through the Campus Storm Water Management Plan, Best Management Practice (BMP) 48, Campus Standards Handbook and Construction Contracts for Storm Water Management. This BMP specifies that projects must comply with Appendix D of the Campus Standards-Erosion and Sediment Control Standards For Projects Under One Acre. BMP 48 also outlines the University's mechanism for enforcement of this requirement through our contracts.

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

Responsible Unit: PP&C

Status: Completed - Ongoing

Description of Status for 2010-11

Sediment control measures are a required element of the campus Storm Water Pollution Prevention Plan template, 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 2010-11

In addition to maintaining signs and fencing from previous years that discourage shortcutting, four new signs and temporary fencing were installed east of the Earth and Marine Sciences Building, by the pedestrian bridge.

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 2010-11

Text about the importance of staying on official paths is included on the Upper Campus Walking Map (available both at <http://maps.ucsc.edu> and at <http://wellness.ucsc.edu/index.php/employee-wellness/resources/56.html>). This text will be added to the next update of the UCSC Walking Map, which shows the central campus.

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

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2010-11

Erosion damage to water bars was inspected and repaired and culverts were cleaned. Grounds cleaned and repaired/replaced the silt fences on the upper campus fire roads. Grounds also maintained the fire roads by doing annual road maintenance as needed.

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

Responsible Unit: PP&C

Status: Completed - Ongoing

Description of Status for 2010-11

The campus' low impact development protocol has been completed and incorporated into the Executive Design Professional Agreement (EDPA) as Exhibit M for all applicable projects.

HYD-5C: Aquifer monitoring.

Responsible Unit: PP&C

Status: Not Triggered

Description of Status for 2010-11

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 2010-11

Currently each project manager is adding the applicable mitigation measures to Division 1 of individual construction contracts and reporting on their implementation in the project mitigation monitoring report. PP&C has drafted an update of the Division 1 template that includes these measures. For each project, the Project Manager will review 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 2010-11

Currently each project manager is adding the applicable mitigation measures to Division 1 of individual construction contracts and reporting on their implementation in the project mitigation monitoring report. PP&C has drafted an update of the Division 1 template that includes these measures. For each project, the Project Manager will review 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% of undergraduates and 25 percent of graduate students.

Responsible Unit: CUHS

Status: Completed - Ongoing

Description of Status for 2010-11

During 2010-11 monitored campus student enrollment and housing capacity for undergraduate and graduate student populations. Student housing capacity in 2010-11

was at 51% of undergraduate student enrollment, and 26% of graduate student enrollment.

POP-3B: Housing collaboration study.

Responsible Unit: CUHS

Status: Completed - No Further Action

Description of Status for 2010-11

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 2010-11

Campus Housing and Market Study Report was completed in September 2008 by consultant group Brailsford and Dunlavey. No action was required in 2010-11.

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

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2010-11

Four signs were placed in 2006, advising trail users that they are leaving the University and entering Pogonip, and notifying them to adhere to City Park regulations. The signs are on Rincon Rd., U-Con trail, Coolidge Rd. lookout, and Spring Road / trail. Fences were repaired and signs were maintained throughout the current reporting year 2010-11.

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

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2010-11

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: Completed - Ongoing

Description of Status for 2010-11

The city does not have a volunteer trail maintenance program. However, UCSC Site Stewardship coordinator Bill Reid worked with the City of Santa Cruz Parks and Recreation department to organize a joint volunteer day on February 26, 2011.

Volunteers from both UCSC and general Santa Cruz community removed invasive French Broom in Pogonip park.

The event was advertised by both the city and the UCSC Site Stewardship Program. Twenty one volunteers from UCSC participated.

REC-4: Recreational facilities available to public

Responsible Unit: OPERS

Status: Completed - Ongoing

Description of Status for 2010-11

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://www2.ucsc.edu/opers/Memberships/MembershipCards.html>.

TRA-1: Monitoring and improve campus intersections.

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2010-11

Turning movement counts were conducted at Hagar/McLaughlin and Heller/Meyer intersections during Fall 2010. While data was collected, it has not yet been processed through the TRAFFIX model to calculate current level of service. However, the total number of vehicle trips to/from campus was lower in 2010-11 than the LRDP EIR baseline (2003-04). The next monitoring study will be done in 2013.

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

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2010-11

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 2010 and May 2011 at seven on-campus and 6-8 off-campus locations by consultants to UCSC TAPS in support of the Mitigation Monitoring Program. The off-campus locations included three locations at the Marine Science Campus, two at the entrances to the 2300 Delaware facility, one on Empire Grade south of Heller Drive (Fall 2010) and the three off-campus legs of the Bay/High intersection (Spring 2011). Annual school-term weekday average daily trips (ADTs) through the two campus entrances equaled 21,248.

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 2010-11

Expansion of existing TDM programs during 2010-11 continued to help reduce traffic volumes to/from campus. The Commuter Vanpool program operated on 22 routes using 12-passenger vans serving 245 participants. The Zipcar carsharing program grew in popularity and utilization, with 9 cars accommodating approximately 1,000 members and average 24/7 utilization exceeding 36%. Zimride, an on-line ridesharing application, saw substantial growth during the 2010-11 academic year.

The Spring 2011 Mode Split Study indicates that 63.2% of all person-trips to the campus are made via alternative transportation. Primary among these was SCMTD public transit

(31.3%), followed by Multi-Occupant Vehicles (23.1%), and “Other TDM Services” including Commuter Vanpools, the Bike Shuttle, and some Day Shuttle ridership (5.1%). Biking and walking comprise 3.3% and 0.4%, respectively. Single Occupant Autos account for only 33.6% of all person-trips. The remaining 3.3% of trips were by Service/Construction/Delivery vehicles and motorcycles.

Traffic volumes through the two campus entrances in the Fall quarter declined 3.2% from the previous reporting year (21,421 ADT in Fall 2010 vs. 22,128 ADT in Fall 2009) while Spring quarter counts declined 4.8% (21,074 ADT in Spring 2011 vs. 22,145 in Spring 2010).

TRA-3B: Parking monitoring and construction.

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2010-11

- 1) No changes were made to the parking zone definitions during 2010-11.
- 2) The Spring 2011 Parking Utilization Survey is on file at UCSC Physical Planning & Construction.
- 3) A portion of 2300 Delaware Building C was occupied beginning in summer 2011, when the Thin Films and Materials Lab Project was completed. This project increased the total population at 2300 Delaware by about six to eight people. As discussed under DA-TRA-1B, a campus-wide commuter survey conducted in Spring 2011 garnered 90 respondents from westside facilities including 2300 Delaware.
- 4) Projects underway or commencing in the near future that generate temporary or permanent parking impacts include:
 - McHenry Library Renovations may require additional disabled and service parking in immediate vicinity of the building;
- 5) Based on Spring 2011 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.
- 6) 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 2010-11

- 1) Use of two mobile changeable message signs has helped direct visitors to specific areas of campus during major campus events.
- 2) No new parking information systems have been pursued at this time. However, the campus formally approved adoption of new street names for several on-campus roadways—a critical first step toward improving on-campus wayfinding.
- 3) Various campus staff are working to improve the quality and availability of web-based campus maps, including updates to Google Maps.
- 4) TAPS has obtained new pay-stations and parking meters with “smart-card” capabilities 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). Implementation of smart-card technology is planned for 2011-12.

TRA-4A: Monitor transit efficiency.

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2010-11

While on-campus traffic volumes have remained constant or declined (as monitored 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, TAPS implemented in Spring 2010 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.

TAPS conducted cordon-count based Mode Split Studies in Spring 2011, that indicate that more than 63% of person-trips through the campus entrances relied on alternative modes, with SCMTD public transit accounting for more than 31% of all person-trips. SCMTD ridership grew by 2.9% over 2009-10, while Campus Transit ridership grew by 7.4%.

TRA-4B: Improve transit efficiency.

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2010-11

1) In Fall 2010 the SCMTD instituted a series of service reductions throughout Santa Cruz County, including the elimination of the Route 27X “Limited Express” service to UCSC and some Night Owl service. While SCMTD transit capacity to UCSC was reduced, ridership still increased by nearly 3% during 2010-11, suggesting improved transit efficiency. The TAPS Director participated in a second year of SCMTD service reduction planning during Spring 2011, including an 8% reduction in service to UCSC scheduled for Fall 2011.

UCSC TAPS also began operating several newer 40-foot transit-style buses on-campus, thereby providing substantially greater capacity for cross-campus transit travelers. As a result, UCSC Campus Transit ridership increased more than 7% during 2010-11. These larger-capacity shuttles significantly improved operating efficiency for the Campus Transit services.

2) 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-TAPS: Campus roadway and circulation improvements.

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2010-11

During 2010-11, TAPS staff continue to work on several roadway and circulation projects:

- The West Entrance Signal Project was completed in September 2010, providing improved traffic control and safety at the intersection of Heller Drive and Empire Grade. This project was primarily funded with external grants.
- Reconstruction of Heller Drive between Meyer Drive and the Core West Parking Structure entrance road in Summer 2011 allowed restriping to provide a Caltrans-compliant Class II bike lane in the uphill direction, as well as safety improvements to the Kerr Hall/Kresge pedestrian crossing of Heller.
- Planning will begin in Fall 2011 for reconstruction of McLaughlin Drive between the McLaughlin Bridge and Coolidge Drive.
- TAPS is cooperating with the City of Santa Cruz Public Works Department to study the feasibility of installing a modern roundabout at the Bay/High intersection at the Main Entrance to campus. Consultant selection will occur during Summer 2011, with planning slated during early 2012.

TRA-4E: Bicycle circulation improvements.

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2010-11

- 1) 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>
- 2) An uphill Class II bike lane was constructed along Chinquapin Drive between McLaughlin Drive and Crown College in Summer 2009.
- 3) An uphill Class II bike lane was added to Heller Drive during a two-phase roadway reconstruction 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.

TRA-4F: Wayfinding systems.

Responsible Unit: TAPS

Status: In Progress

Description of Status for 2010-11

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.

TRA-5B: Special-event parking management.

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2010-11

1) Based on records collected by the Events Parking coordinator, the campus hosted 873 events during 2010-11 attracting approximately 467,800 attendees. This represents an increase of 27.5% in the number of events and 52.5% in the number of attendees since 2009-10.

2) Event sponsors are not currently required to list their events in the online campus calendar. Campus units that don't list their events often impact the events of others (parking, traffic). 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. However, "rogue events" continue to create problems when multiple events occur simultaneously.

3) 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 2010-11 fiscal year, the Real Estate Office (REO) requested greater involvement in the campus event planning process to ensure adequate and timely inclusion of necessary documentation (permits, insurance, etc.).

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

Responsible Unit: TAPS

Status: In Progress

Description of Status for 2010-11

TAPS and ITS staff have begun development of an on-line Guest Parking Permit for departmental use, with preliminary implementation slated for Fall 2011. 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. Additionally, TAPS is considering the feasibility of shifting from permit-based to license plate-based parking management systems as it investigates replacement of the current Point Of Sale (POS) and Parking Enforcement systems during the next two years.

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

Responsible Unit: TAPS

Status: Completed - Ongoing

Description of Status for 2010-11

1) 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 has been made on "phase 2" during 2010-11.

2) 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; TAPS is not notified of events not posted 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.

3) 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-TAPS: Fair share contribution to freeway facility improvements.

Responsible Unit: TAPS

Status: Not Triggered

Description of Status for 2010-11

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.

UTIL-4: Improve recycling and waste reduction.

Responsible Unit: Physical Plant

Status: Completed - Ongoing

Description of Status for 2010-11

Efforts to recover recyclables at student move in and move out have increased. Ecology Action of Santa Cruz (EA) assisted Grounds Services with waste assessment and targeting of recycling efforts. Ecology Action provided additional recycling bins, recycling dumpsters, and signage for use in UCSC housing areas. A partnership with EA and Grounds services was initiated to fund a roll off truck to haul housing recyclables (CRV). Grounds Services maintained a CRV License and increased the CRV tonnage hauled.

The new roll-off truck purchase was completed along with the purchase of a larger capacity front loader truck which improved the efficiency of transportation of recyclable materials.

Sorting line equipment was purchased to more efficiently separate CRV materials from the recycle stream. The equipment should be in operation early 2011-2012.

The diversion percentage as reported to UCOP for 2010-2011 was 59% without construction waste and 74% with construction waste.

UTIL-9A: Water efficient washing machines

Responsible Unit: CUHS/OPERS

Status: Completed - Ongoing

Description of Status for 2010-11

The current contract for washing machines in student housing runs from July 2009 through June 2012. The contract specifies: All machines must 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.

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 2010-11

The campus leak detection and repair practices have not changed since the 2008-09 reporting year. On a monthly basis, Patrick Testoni, Campus Energy Manager, provides a chart that indicates water usage from all the points of 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 and 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.

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

Responsible Unit: Physical Plant/PP&C

Status: Completed - Ongoing

Description of Status for 2010-11

In previous years, the Campus has tested a number of low-flow flush toilet and urinal valves. The Sloan Uppercut Dual Flush (1.1gpf up & 1.6GPF down) for flush valve-type/wall-mount toilets has been inserted into the Campus Standards and was used to retro-fit Campus OMP restroom toilets and in the Porter College Residence Hall renovations. The Sloan Model 1000.1001-0.13 Manual H2O Flushometer and urinal (1/8 GPF) has also been added to the Campus Standards. The High Sierra 1.5 GPM shower head has been tested and adopted into the Campus Standards. No new pilot tests were conducted in 2010-11.

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

Responsible Unit: CUHS

Status: Completed - Ongoing

Description of Status for 2010-11

CUHS' water conservation education program is coordinated by a Housing Services Facilities Resource Conservation, Training, and Safety Coordinator. During 2010-11, CUHS provided educational materials to residents including posters, table-tents, flyers and cling-on conservation reminders in bathrooms. The University Housing Services Resource Conservation Coordinator and CUHS-sponsored Green Campus Program students have held conservation tabling events at colleges and all-campus recreational events, and at new-student orientations.

UTIL-9D: Campus water audit.

Responsible Unit: PP&C

Status: Completed - No Further Action

Description of Status for 2010-11

Mitigation was completed in 2007.

UTIL-9: Implement water audit recommendations.

Responsible Unit: CUHS/Physical Plant

Status: Completed - No Further Action

Description of Status for 2010-11

All high priority items recommended in the 2007 water audit have been completed.

UTIL-9F: Update water audit

Responsible Unit: Physical Plant

Status: Not Triggered

Description of Status for 2010-11

No action was required in 2010-11.

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

Responsible Unit: PP&C

Status: Completed - No Further Action

Description of Status for 2010-11

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: Completed-Ongoing

Description of Status for 2010-11

Replacement of toilets is being completed together with major accessibility improvements of the oldest college residential facilities at Merrill, Kresge, and Oakes (Apartments). CUHS is addressing this in the following plan:

- 1) CUHS completed the retrofit of Crown College residence halls/faculty apartments (nine buildings), with a major access improvement, in summer of 2011.
- 2) Planning has begun planning to replace flushometer valves at five buildings at Merrill College, together with accessibility improvements, in summer 2013.
- 3) Replacement of toilets at Kresge College will be included in an upcoming major capital renewal project. CUHS is currently developing a plan for replacement of toilets at Oakes College Apartments as part of a phased project that will include code-required accessibility improvements in 2012-2013.

UTIL-9I: Water conservation in drought emergency

Responsible Unit: Arboretum/CASFS/CUHS/Physical Plant

Status: Not Triggered

Description of Status for 2010-11

The City did not implement any drought restrictions in 2010-11. No action was required.