



APPENDIX 11.1

Applicable 2005 LRDP FEIR Planning Strategies, Programs and Practices, and Mitigation Measure

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- PS Land Use (4) Pursue a goal of housing 50 percent of student enrollment in on-campus or campus-controlled housing.
- PS Land Use (7) Over time, relocate parking from central campus locations to the periphery of the academic core and replace surface parking with structures, where appropriate.
- PS Open Space (1) Protect the steep and natural hillsides on the southeast campus designated as a Natural Open Space Reserve, to protect wildlife habitat, provide a visual backdrop to the campus, and protect against erosion.
- PS Open Space (2) Within the Natural Open Space Reserve, no major facilities are allowed (except for sensitively sited utility projects), vehicular and pedestrian access will be limited, and native plant materials will be used, where needed, for erosion, screening, and restoration.
- PS Open Space (3) In Naturalistic Open Space areas, where arroyos and other natural features exist, preserve wherever feasible, existing landforms, native plant materials, and trees. Where appropriate, restore habitat value.
- PS Open Space (7) Provide neighborhood parks and tot lots in the family housing areas as neighborhood open space.
- PS Transportation (1) Develop an integrated multi-modal transportation plan to encourage walking, biking, and transit use.
- PS Transportation (2) Expand shuttle or tram service connecting major parking lots and campus destinations, and linking the East and West Campuses. Coordinate this system with RTA routes and schedules.
- PS Transportation (3) Provide a continuous network of bicycle lanes and paths throughout the campus, connecting to off-campus bicycle routes.
- PS Transportation (4) Over time, limit general vehicular circulation in the central campus, but allow transit, service, and emergency vehicle access, and provide access for persons with mobility impairments.
- PS Transportation (5) Provide bicycle parking at convenient locations.
- PS Transportation (6) Implement parking management measures that may include:
- Restricted permit availability;
 - Restricted permit mobility; and
 - Differential permit pricing.
- PS Conservation (1) Protect natural resources, including native habitat; remnant arroyos; and mature trees, identified as in good health as determined by a qualified arborist, to the extent feasible.
- PS Conservation (2) Site buildings and plan site development to minimize site disturbance, reduce erosion and sedimentation, reduce storm water runoff, and maintain existing landscapes, including healthy mature trees whenever possible.
- PS Conservation (5) Continue to adhere to the conservation requirements of Title 24 of the California Code of Regulations and comply with any future conservation goals or programs enacted by the University of California.

AESTHETICS

PP 4.1-1 The campus shall provide design architects with the Campus Design Guidelines and instructions to implement the guidelines, including those sections related to use of consistent scale and massing, compatible architectural style, complementary color palette, preservation of existing site features, and appropriate site and exterior lighting design. (This is identical to Land Use PP 4.9-1(a).)

AIR QUALITY

PP 4.3-2(a) Construction contract specifications shall include the following:

- (i) Compliance with all SCAQMD rules and regulations
- (ii) Maintenance programs to assure vehicles remain in good operating condition
- (iii) Avoid unnecessary idling of construction vehicles and equipment
- (iv) Use of alternative fuel construction vehicles
- (v) Provision of electrical power to the site, to eliminate the need for on-site generators

PP 4.3-2(b) The campus shall continue to implement dust control measures consistent with South Coast Air Quality Management District (SCAQMD) Rule 403—Fugitive Dust during the construction phases of new project development. The following actions are currently recommended to implement Rule 403 and have been quantified by the SCAQMD as being able to reduce dust generation between 30 and 85 percent depending on the source of the dust generation. The Campus shall implement these measures as necessary to reduce fugitive dust. Individual measures shall be specified in construction documents and require implementation by construction contractor:

- (i) Apply water and/or approved non-toxic chemical soil stabilizers according to manufacturer's specification to all inactive construction areas (previously graded areas that have been inactive for 10 or more days)
- (ii) Replace ground cover in disturbed areas as quickly as possible
- (iii) Enclose, cover, water twice daily, or apply approved chemical soil binders to exposed piles with 5 percent or greater silt content
- (iv) Water active grading sites at least twice daily
- (v) Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour over a 30-minute period
- (vi) All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (i.e., minimum (vertical distance between top of the load and the top of the trailer), in accordance with Section 23114 of the California Vehicle Code
- (vii) Sweep streets at the end of the day if visible soil material is carried over to adjacent roads
- (viii) Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip (ix) Apply water three times daily or chemical soil stabilizers according to manufacturers' specifications to all unpaved parking or staging areas or unpaved road surfaces (x) Post and enforce traffic speed limits of 15 miles per hour or less on all unpaved roads (This is identical to Geology PP 4.6-2(a) and Hydrology PP 4.8-3(c).)

PP 4.3-2(c) The campus shall continue to implement SCAQMD Rule 1403—Asbestos when demolishing existing buildings on the campus.

MM 4.3-3 To reduce energy consumption and area wide emission of criteria pollutants, the campus shall annually inspect and enforce an emissions reduction control strategy, which may include, where feasible, the following:

Design

- Use light-colored roof materials to reduce heat gain
- Orient buildings to the north and include passive solar design features
- Increase building and attic insulation beyond Title 24 requirements
- Provide electric vehicle charging systems at convenient location in campus parking facilities
- Provide prominent website and/or kiosks displaying information about alternative transportation programs
- Install electrical outlets outside buildings for the use of electric landscape maintenance equipment

Operation

- Implement a subsidized vanpool program
- Implement staggered or compressed work schedules to reduce vehicular traffic
- Use alternative fuel shuttle buses to reduce intra-campus vehicle trips
- Provide shuttle service to major off-campus activity centers and Metrolink station(s)
- Aggressive expansion of the campus TDM program to achieve an AVR of 1.5
- Expand transit subsidies to encourage use of public transit
- Implement incentives for telecommuting
- Convert campus fleet to low emission, alternative fuel, and electric vehicles over time
- Implement solar or low-emission water heaters
- Implement an educational program for faculty and staff and distribute information to students and visitors about air pollution problems and solutions

BIOLOGICAL RESOURCES

- PP 4.4-1(b) To reduce disturbance of Natural and Naturalistic Open Space areas:
- (i) Unnecessary driving in sensitive or otherwise undisturbed areas shall be avoided. New roads or construction access roads would not be created where adequate access already exists.
 - (ii) Removal of native shrub or brush shall be avoided, except where necessary.
 - (iii) Drainages shall be avoided, except where required for construction. Limit activity to crossing drainages rather than using the lengths of drainage courses for access.
 - (iv) Excess fill or construction waste shall not be dumped in washes.
 - (v) Vehicles or other equipment shall not be parked in washes or other drainages.
 - (vi) Overwatering shall be avoided in washes and other drainages.
 - (vii) Wildlife including species such as fox, coyote, snakes, etc. shall not be harassed. Harassment includes shooting, throwing rocks, etc. (This is identical to Aesthetics PP 4.1-2(d) and Hydrology 4.8-3(b).)

GEOLOGY AND SOILS

- PP 4.6-1(b) The campus shall continue to implement its current seismic upgrade program.
- PP 4.6-1(c) The campus will continue to fully comply with the University of California's Policy for Seismic Safety, as amended. The intent of this policy is to ensure that the design and construction of new buildings and other facilities shall, as a minimum, comply with seismic provisions of California Code of Regulations, Title 24, California Administrative Code, the California State Building Code, or local seismic requirements, whichever requirements are most stringent.
- PP 4.6-2(a) The campus shall continue to implement dust control measures consistent with SCAQMD Rule 403—Fugitive Dust during the construction phases of new project development. The following actions are currently recommended to implement Rule 403 and have been quantified by the SCAQMD as being able to reduce dust generation between 30 and 85 percent depending on the source of the dust generation. The Campus shall implement these measures as necessary

to reduce fugitive dust. Individual measures shall be specified in construction documents and require implementation by construction contractor:

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- (iii) Enclose, cover, water twice daily, or apply approved chemical soil binders to exposed piles with 5 percent or greater silt content
- (iv) Water active grading sites at least twice daily
- (v) Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour over a 30-minute period
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- (vii) Sweep streets at the end of the day if visible soil material is carried over to adjacent roads
- (viii) Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip
- (ix) Apply water three times daily or chemical soil stabilizers according to manufacturers' specifications to all unpaved parking or staging areas or unpaved road surfaces
- (x) Post and enforce traffic speed limits of 15 miles per hour or less on all unpaved roads (This is identical to Air Quality PP 4.3-2(b) and Hydrology PP 4.8-3(c).)

PP 4.6-2(b) In compliance with National Pollution Discharge Elimination System (NPDES), the campus would continue to implement Best Management Practices, as identified in the UCR Stormwater Management Plan (UCR 2003):

- (i) Public education and outreach on stormwater impacts
- (ii) Public involvement/participation
- (iii) Illicit discharge detection and elimination
- (iv) Pollution prevention/good housekeeping for facilities
- (v) Construction site stormwater runoff control
- (vi) Post-construction stormwater management in new development and redevelopment (This is identical to Biological Resources PP 4.4-2(b) and Hydrology PP 4.8-3(d).)

HAZARDS AND HAZARDOUS MATERIALS

PP 4.7-1 The campus shall continue to implement the current (or equivalent) health and safety plans, programs, and practices related to the use, storage, disposal, or transportation of hazardous materials, including, but not necessarily limited to, the Business Plan, the Broadscope Radioactive Materials License, and the following programs: Biosafety, Emergency Management, Environmental Health, Hazardous Materials, Industrial Hygiene and Safety, Laboratory/Research Safety, Radiation Safety, and Integrated Waste Management. These programs may be subject to modification as more stringent standards are developed or if the programs are replaced by other programs that incorporate similar health and safety protection measures.

PP 4.7-2 The campus shall perform hazardous materials surveys on buildings and soils, if applicable, prior to demolition. When remediation is deemed necessary, surveys shall identify all potential hazardous materials within the structure to be demolished, and identify handling and disposal practices. The campus shall follow the practices during building demolition to ensure construction worker and public safety.

PP 4.7-3 The campus will inform employees and students of hazardous materials minimization strategies applicable to research, maintenance, and instructional activities, and require the implementation of these strategies where feasible. Strategies include but are not limited to the following:

- (i) Maintenance of online database by EH&S of available surplus chemicals retrieved from laboratories to minimize ordering or new chemicals.
- (ii) Shifting from chemical usage to micro techniques as standard practice for instruction and research, as better technology becomes available.

PP 4.7-4 Prior to demolition of structures on the campus or new construction on former agricultural teaching and research fields, the campus shall complete a Phase I environmental site assessment to determine the potential for soil or groundwater contamination on a project site. If the assessment determines that a substantial potential for contamination exists on the site, the campus shall develop and implement an appropriate testing and, if needed, develop a remediation strategy prior to demolition or construction activities.

If contaminated soil and/or groundwater is encountered during the removal of on-site debris or during excavation and/or grading activities:

- (i) The construction contractor(s) shall stop work and immediately inform EH&S.
- (ii) An on-site assessment shall be conducted to determine if the discovered materials pose a significant risk to the public or construction workers.
- (iii) If the materials are determined to pose such a risk, a remediation plan shall be prepared and submitted to EH&S to comply with all federal and State regulations necessary to clean and/or remove the contaminated soil and/or groundwater.
- (iv) Soil remediation methods could include, but are not necessarily limited to, excavation and onsite treatment, excavation and off-site treatment or disposal, and/or treatment without excavation.
- (v) Remediation alternatives for cleanup of contaminated groundwater could include, but are not necessarily limited to, on-site treatment, extraction and off-site treatment, and/or disposal.
- (vi) The construction schedule shall be modified or delayed to ensure that construction will not inhibit remediation activities and will not expose the public or construction workers to significant risks associated with hazardous conditions.

PP 4.7-7(a) To the extent feasible, the campus shall maintain at least one unobstructed lane in both directions on campus roadways. At any time only a single lane is available, the campus shall provide a temporary traffic signal, signal carriers (i.e., flagpersons), or other appropriate traffic controls to allow travel in both directions. If construction activities require the complete closure of a roadway segment, the campus shall provide appropriate signage indicating alternative routes. (This is identical to Transportation and Traffic PP 4.14-5.)

PP 4.7-7(b) To maintain adequate access for emergency vehicles when construction projects would result in roadway closures, the Office of Design and Construction shall consult with the UCPD, EH&S, and the RFD to disclose roadway closures and identify alternative travel routes. (This is identical to Transportation and Traffic PP 4.14-8.)

MM 4.7-7(a) Evacuation zones designated in the UCR Emergency Operations Plan will be avoided, to the extent feasible, when siting construction staging areas. Where evacuation zones cannot be avoided, alternative evacuation zones shall be identified. UCPD and the Riverside Fire Department shall be notified of alternative evacuation zones so that they can respond accordingly to any emergencies.

MM 4.7-8(a) Provide landscaping around development areas adjacent to preserved open space that emphasizes native or traditional plant material where appropriate and provides a transition to developed areas in a manner that minimizes dense vegetation immediately adjacent to structural development. Landscaping shall be shown on building plans, and plans shall be reviewed and approved for conformance with this measure prior to project design approval and project-specific construction documents.

MM 4.7-8(b) Implement annual fuel management procedures to maintain a firebreak between the undeveloped areas and structures.

HYDROLOGY AND WATER QUALITY

PP 4.8-1 The campus will continue to comply with all applicable water quality requirements established by the SARWQCB. (This is identical to Utilities PP 4.15-5.)

PP 4.8-3(c) The campus shall continue to implement dust control measures consistent with SCAQMD Rule 403—Fugitive Dust during the construction phases of new project development. The following actions are currently recommended to implement Rule 403 and have been quantified by the SCAQMD as being able to reduce dust generation between 30 and 85 percent depending on the source of the dust generation. The Campus shall implement these measures as necessary to reduce fugitive dust. Individual measures shall be specified in construction documents and require implementation by construction contractor:

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- (ix) Apply water three times daily or chemical soil stabilizers according to manufacturers' specifications to all unpaved parking or staging areas or unpaved road surfaces.
- (x) Post and enforce traffic speed limits of 15 miles per hour or less on all unpaved roads (This is identical to Air Quality PP 4.3-2(b) and Geology PP 4.6-2(a)).

PP 4.8-3(d) In compliance with NPDES, the campus would continue to implement Best Management Practices, as identified in the UCR Stormwater Management Plan (UCR 2003):

- (i) Public education and outreach on stormwater impacts
- (ii) Public involvement/participation
- (iii) Illicit discharge detection and elimination
- (iv) Pollution prevention/good housekeeping for facilities
- (v) Construction site stormwater runoff control
- (vi) Post-construction stormwater management in new development and redevelopment (This is identical to Geology & Soils PP 4.6 - 2 (b) and Biological Resources PP 4.4-2(b))

NOISE

PP 4.10-7(a) To the extent feasible, construction activities shall be limited to 7:00 AM to 9 PM Monday through Friday, 8:00 AM to 6:00 PM on Saturday, no construction on Sunday and national holidays.

- PP 4.10-7(b) The campus shall continue to require by contract specifications that construction equipment be required to be muffled or otherwise shielded. Contracts shall specify that engine-driven equipment be fitted with appropriate noise mufflers.
- PP 4.10-7(c) The campus shall continue to require that stationary construction equipment material and vehicle staging be placed to direct noise away from sensitive receptors.
- PP 4.10-7(d) The campus shall continue to conduct regular meetings, as needed, with on-campus constituents to provide advance notice of construction activities in order to coordinate these activities with the academic calendar, scheduled events, and other situations, as needed.

PUBLIC SERVICES

- PP 4.12-1(a) As development occurs, the following measures will be incorporated:
 - (i) New structures would be designed with adequate fire protection features in compliance with State law and the requirements of the State Fire Marshal. Building designs would be reviewed by appropriate campus staff and government agencies.
 - (ii) Prior to implementation of individual projects, the adequacy of water supply and water pressure will be determined in order to ensure sufficient fire protection services.
 - (iii) Adequate access will be provided to within 50 feet of the main entrance of occupied buildings to accommodate emergency ambulance service.
 - (iv) Adequate access for fire apparatus will be provided within 50 feet of stand pipes and sprinkler outlets.
 - (v) Service roads, plazas, and pedestrian walks that may be used for fire or emergency vehicles will be constructed to withstand loads of up to 45,000 pounds.
 - (vi) As implementation of the LRDP occurs, campus fire prevention staffing needs would be assessed, increases in staffing would be determined through such needs assessments.

- PP 4.12-1(b)
 - (i) Accident prevention features shall be reviewed and incorporated into new structures to minimize the need for emergency response from the City of Riverside.
 - (ii) Increased staffing levels for local fire agencies shall be encouraged to meet needs generated by LRDP project related on-campus population increases.

PP 4.12-2(a) As development under the LRDP occurs, the campus will hire additional police officers and support staff as necessary to maintain an adequate level of service, staff, and equipment, and will expand the existing police facility when additional space is required.

PP 4.12-2(b) The campus will continue to participate in the “UNET” program (for coordinated police response and staffing of a community service center), which provides law enforcement services in the vicinity of the campus, with equal participation of UCR and City police staffs.

TRAFFIC AND TRANSPORTATION

PP 4.14-1 The campus shall continue to implement a Transportation Demand Management program that meets or exceeds all trip reduction and AVR requirements of the SCAQMD. The TDM program may be subject to modification as new technologies are developed or alternate program elements are found to be more effective. (This is identical to Air Quality PP 4.3-1.)

PP 4.14-5 To the extent feasible, the campus shall maintain at least one unobstructed lane in both directions on campus roadways. At any time only a single lane is available, the campus shall provide a temporary traffic signal, signal carriers (i.e., flagpersons), or other appropriate traffic controls to allow travel in both directions. If construction activities require the complete closure

of a roadway segment, the campus shall provide alternate routes and appropriate signage. (This is identical to Hazards and Hazardous Materials PP 4.7-7(a).)

PP 4.14-6 For any construction-related closure of pedestrian routes, the campus shall provide alternate routes and appropriate signage and provide curb cuts and street crossings to assure alternate routes are accessible.

UTILITIES

PP 4.15-1(a) Improvements to the campus water distribution system, including necessary pump capacity, will be made as required to serve new projects. Project-specific CEQA analysis of environmental effects that would occur prior to project-specific approval will consider the continued adequacy of the domestic/fire water systems, and no new development would occur without a demonstration that appropriate domestic/fire water supplies continue to be available.

PP 4.15-1(b) To further reduce the campus' impact on domestic water resources, to the extent feasible, UCR will:

- (i) Install hot water recirculation devices (to reduce water waste)
- (ii) Continue to require all new construction to comply with applicable State laws requiring water efficient plumbing fixtures, including but not limited to the Health and Safety Code and Title 24, California Code of Regulations, Part 5 (California Plumbing Code)
- (iii) Retrofit existing plumbing fixtures that do not meet current standards on a phased basis over time
- (iv) Install recovery systems for losses attributable to existing and proposed steam- and chilled-water systems
- (v) Prohibit using water as a means of cleaning impervious surfaces
- (vi) Install water-efficient irrigation equipment to local evaporation rates to maximize water savings for landscaping and retrofit existing systems over time (This is identical to Hydrology PP 4.8-2(a)).

PP 4.15-1(c) The campus shall promptly detect and repair leaks in water and irrigation pipes. (This is identical to Hydrology PP 4.8-2(b).)

PP 4.15-1(d) The campus shall avoid serving water at food service facilities except upon request.

PP 4.15-5 The campus will continue to comply with all applicable water quality requirements established by the SARWQCB. (This is identical to Hydrology PP 4.8-1.)