10 MITIGATION MONITORING & REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) presents the Mitigation Measures (MMs) and Continuing Best Practices (CBPs) identified in the UC Berkeley 2020 Long Range Development Plan and Chang-Lin Tien Center for East Asian Studies EIR. It is prepared in compliance with Section 15097 of the CEQA Guidelines, which requires that the Lead Agency "adopt a program for monitoring or reporting the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects." UC Berkeley both monitors and reports on its mitigation measures.

The first column of Table 10-1 lists the MM or CBP required to address an impact identified in the EIR. The second column indicates how the MM or CBP would be put in question form to staff implementing the measure. Column three lists the parties responsible for ensuring implementation of each MM or CBP. (In some instances, the unit implements the practice or measure; in some instances, the unit has responsibility to track and manage a process that ensures it is implemented.) The fourth column indicates when the MM or CBP would be implemented. The timing milestones correspond to the UC project funding process: P is the planning and schematic design phase; W is the development of construction drawings or "working" drawings and the bid phase; C is the period of construction; O is the post-occupancy period.

This table will be the basis for a "Mitigation Monitoring and Reporting Table" for each project to be developed under the 2020 LRDP (informally termed the "MMRP Checklist"). Checklists will be distributed to the responsible parties for each project during the planning and design development phase (P), CD/bid phase (W), construction phase (C), and post-occupancy phase (O), and will ask whether each MM or CBP has been performed, as well as for the reporter's comments. For those MMs and CBPs to be monitored during post-occupancy operation and maintenance, or for programmatic practices and measures to be implemented outside the project development process, annual checklists will be issued to the responsible parties.

Among the units with MMRP implementation responsibility are Environment, Health and Safety (EH&S), staffed in part by environmental protection and hazardous materials specialists with regulatory compliance and environmental stewardship responsibilities. The Campus Fire Marshal (CFM) is also a member of the EH&S staff. The work program of the Office of Emergency Preparedness (OEP) includes implementation of wildfire risk management projects in the Hill Campus ecosystem. The Residential and Student Services Program (RSSP) develops and manages student housing and dining services, among other responsibilities. The Parking & Transportation office (P&T) manages campus parking facilities and transportation programs.

Within Facilities Services at UC Berkeley, Physical Plant-Campus Services (PPCS) operates, maintains and improves the campus physical plant. The Campus Landscape Architect (CLA) advises on every aspect of the campus landscape. Typically, the PEP unit coordinates and manages campus project definition and review, and the Project Management unit (PM) manages projects from the design phase through project construction; in limited circumstances, these roles are combined, or carried out by staff from other units, such as PPCS.

IMPLEMENTATION

Implementation of this MMRP would ensure that all of the significant impacts identified in the EIR, with the exception of those impacts identified as significant and unavoidable, would be reduced to a less than significant level.

The UC Berkeley Office of Physical and Environmental Planning (PEP) maintains MMRP records for each project. The MMRP is included as a condition of project approval.

Facilities Services will develop an implementation guide for mitigation monitoring and update it as needed.

Reporting procedures record mitigation implementation. Reporting generally involves the following steps:

1. PEP distributes checklists to responsible entities for verification of compliance.

2. Responsible entities verify compliance by answering per-measure questions, then sign and date the MMRP Table checklist and return it to PEP for records-keeping.

3. PEP prepares an annual report to the Vice Chancellor-Facilities Services on mitigation compliance.

4. All annual reports and checklists related to a project's MMRP are available for public review upon request at PEP.

The University reserves the right to make amendments and/or substitutions of MMs and/or CBPs if, in the University's discretion, it is determined that the amended or substituted MM or CBP will eliminate the potential for an environmental impact to at least the same degree as the original MM or CBP and where the amendment or substitution would not result in a new significant impact on the environment which cannot be mitigated.

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
AESTHETICS			
Continuing Best Practice AES-1-a: New projects in the Campus Park would as a general rule conform to the Campus Park Guidelines. While the Guidelines would not preclude alternate design concepts when such concepts present the best solution for a particular site, UC Berkeley would not depart from the Guidelines except for solutions of extraordinary quality.	a) Does the project conform to Campus Park Guidelines? b) If response to (a) above is "no", does the design solution display extraordinary quality?	PEP, PM	P
Continuing Best Practice AES-1-b: Major new campus projects would continue to be reviewed at each stage of design by the UC Berkeley Design Review Committee. The provisions of the 2020 LRDP, as well as project specific design guidelines prepared for each such project, would guide these reviews.	a) Has this project been reviewed at each stage of design by DRC? b) Have project-specific design guidelines and LRDP provisions guided the DRC review?	PEP, PM	P
Continuing Best Practice AES-1-c: New Hill Campus projects would as a general rule conform to the design principles established in the Hill Campus Framework. While these principles would not preclude alternate design concepts when such concepts present the best solution for a particular site, the University would not depart from these principles except for solutions of extraordinary quality.	a) Does this project conform to the design principles established in the Hill Campus Framework? b) If the answer to (a) is "no", is the design of extraordinary quality?	PEP	P
Continuing Best Practice AES-1-d: To the extent feasible, future fuel management practices would include the selective replacement of high-hazard introduced plant species with native species: for example, the restoration of native grassland and oak-bay woodland though the eradication of invasive exotics, and replacement of aged pines and second-growth eucalyptus. Such conversions would be planned with care, however, to avoid significant disruption of faunal habitats.	a) Does this project include the selective replacement of high-fire-hazard introduced plant species with native species? b) Has care been exercised to avoid disruption of faunal habitats?	PM, OEP	P
Continuing Best Practice AES-1-e: UC Berkeley would make informational presentations of all major projects in the City Environs in Berkeley to the Berkeley Planning Commission and, if relevant, the Berkeley Landmarks Preservation Commission for comment prior to schematic design review by the UC Berkeley Design Review Committee. Major projects in the City Environs in Oakland would similarly be presented to the Oakland Planning Commission and, if relevant, to the Oakland Landmarks Preservation Advisory Board. Whenever a project in the City Environs is under consideration by the UC Berkeley DRC, a staff representative designated by the city in which it is located would be invited to attend and comment on the project.	a) Was this project presented for comment, prior to DRC review, to the City of Berkeley or Oakland Planning Commissions and, if relevant, to the Landmarks Preservation Commission/Advisory Board? b) For a project in the City Environs, has a staff representative designated by the city in which the project is located been invited to attend the UC Berkeley DRC to comment on the project?	PEP	P

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
AESTHETICS			
Continuing Best Practice AES-1-f: Each individual project built in the City Environs under the 2020 LRDP would be assessed to determine whether it could pose potential significant aesthetic impacts not anticipated in the 2020 LRDP, and if so, the project would be subject to further evaluation under CEQA.	a) Has the project been assessed to determine whether it could pose potential significant aesthetic impacts not anticipated in the 2020 LRDP? b) If (an) unanticipated impact(s) may occur, has further CEQA evaluation been performed? Briefly describe nature of evaluation in Comment column.	PEP	P
Continuing Best Practice AES-1-g: To the extent feasible, University housing projects in the 2020 LRDP Housing Zone would not have a greater number of stories nor have setback dimensions less than could be permitted for a project under the relevant city zoning ordinance as of July 2003.	a) Does this project have a greater number of stories than could be permitted for a project under the relevant city zoning ordinance as of July 2003? b) Does this project have setback dimensions less than could be permitted for a project under the relevant city zoning ordinance as of July 2003?	PEP	P
Continuing Best Practice AES-1-h: Assuming the City adopts the Southside Plan without substantive changes, the University would as a general rule use, as its guide for the location and design of University projects implemented under the 2020 LRDP within the area of the Southside Plan, the design guidelines and standards prescribed in the Southside Plan, which would supersede provisions of the City's prior zoning policy.	Has the project used the design guidelines and standards prescribed in the Southside Plan as its guide for project location and design?	PEP	P
LRDP Mitigation Measure AES-3-a: Lighting for new development projects would be designed to include shields and cut-offs that minimize light spillage onto unintended surfaces, and to minimize atmospheric light pollution. The only exception to this principle would be in those areas within the Campus Park where such features would be incompatible with the visual and/or historic character of the area.	Does project lighting include shields and cut-offs to minimize spill-over and light pollution (unless such features are incompatible with visual or historic character of the project or its immediate context)?	PM	P

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
AESTHETICS			
LRDP Mitigation Measure AES-3-b: As part of the design review procedures described in the above Continuing Best Practices, light and glare would be given specific consideration, and measures incorporated into the project design to minimize both. In general, exterior surfaces would not be reflective: architectural screens and shading devices are preferable to reflective glass.	a) Have light and glare been given special consideration during design? b) Have design measures been incorporated into the project to minimize light pollution and glare? c) Are exterior surfaces reflective? d) Have architectural screening and shading been incorporated into project design?	PM	P
AIR QUALITY			
Continuing Best Practice AIR-1: UC Berkeley shall continue to implement the same or equivalent alternative transit programs, striving to improve the campus mode split and reduce the use of single occupant vehicles among students, staff, faculty and visitors to campus.	Has UC Berkeley continued to implement the same or equivalent alternative transit programs, striving to improve the campus mode split and reduce the use of single occupant vehicles among students, staff, faculty and visitors to campus?	P&T	O
Continuing Best Practice AIR-4-a: UC Berkeley shall continue to include in all construction contracts the measures specified below to reduce fugitive dust impacts: ▪ All disturbed areas, including quarry product piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using tarps, water, (non-toxic) chemical stabilizer/suppressant, or vegetative ground cover. ▪ All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or (nontoxic) chemical stabilizer/suppressant. ▪ When quarry product or trash materials are transported off-site, all material shall be covered, or at least two feet of freeboard space from the top of the container shall be maintained.	a) Are measures to reduce fugitive dust impacts included in construction contracts? b) Have all disturbed areas not under active construction been stabilized for dust emissions using tarps, water, (non-toxic) chemical stabilizer/suppressant, or vegetative ground cover? c) Have all on-site unpaved roads, and unpaved access roads to the site, been stabilized for dust emissions using water or non-toxic chemical stabilizer/suppressant? d) When quarry product or trash materials are transported off-site, are all materials covered, or has at least two feet of freeboard space from the top of the container/truck been maintained?	PM, OEP	W*and* C

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
AIR QUALITY			
LRDP Mitigation Measure AIR-4-a: In addition, UC Berkeley shall include in all construction contracts the measures specified below to reduce fugitive dust impacts, including but not limited to the following: ▪ All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking. ▪ When demolishing buildings, water shall be applied to all exterior surfaces of the building for dust suppression. ▪ All operations shall limit or expeditiously remove the accumulation of mud or dirt from paved areas of construction sites and from adjacent public streets as necessary. See also CBP HYD 1-b. ▪ Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions by utilizing sufficient water or by covering. ▪ Limit traffic speeds on unpaved roads to 15 mph. ▪ Water blasting shall be used in lieu of dry sand blasting wherever feasible. ▪ Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with slopes over one percent. ▪ To the extent feasible, limit area subject to excavation, grading, and other construction activity at any one time. ▪ Replant vegetation in disturbed areas as quickly as possible.	a) Are measures to reduce fugitive dust impacts included in construction contracts? b) Have all dust emissions been stabilized and controlled using presoaking or water applications during work, including applications to building surfaces during demolition? c) Have all operations limited or expeditiously removed the accumulation of mud or dirt from paved areas of construction sites and from adjacent public streets as necessary? d-i) Immediately after adding or removing materials from any storage pile, has water or coverings been used to control dust emissions from the pile? d-ii) Has water blasting been used in lieu of dry sand blasting wherever feasible? e) Has excavation, grading and other construction been limited to the smallest possible area, insofar as feasible? f) Have erosion control measures been utilized, and disturbed areas been revegetated as quickly as possible, to prevent silt runoff?	PM, OEP	W*and* C
Continuing Best Practice AIR-4-b: UC Berkeley shall continue to implement the following control measure to reduce emissions of diesel particulate matter and ozone precursors from construction equipment exhaust: ▪ Minimize idling time when construction equipment is not in use.	When construction equipment is not in active use, has idling time been minimized?	PM, OEP	W *and* C

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
AIR QUALITY			
LRDP Mitigation Measure AIR-4-b: UC Berkeley shall implement the following control measures to reduce emissions of diesel particulate matter and ozone precursors from construction equipment exhaust: ▪ To the extent that equipment is available and cost effective, UC Berkeley shall require contractors to use alternatives to diesel fuel, retrofit existing engines in construction equipment and employ diesel particulate matter exhaust filtration devices. ▪ To the extent practicable, manage operation of heavy-duty equipment to reduce emissions, including the use of particulate traps.	a) Have contractors, including subs, been required to use alternate fuels and retrofit existing construction equipment engines accordingly, to the extent that such equipment and fuel is available and cost-effective? b) Has the project managed operation of heavy-duty equipment to reduce emissions, including the use of particulate traps, to the extent practicable?	PM, OEP	W *and* C
Continuing Best Practice AIR-5: UC Berkeley will continue to implement transportation control measures such as supporting voluntary trip-reduction programs, ridesharing, and implementing improvements to bicycle facilities.	Has UC Berkeley continued to implement transportation control measures such as supporting voluntary trip-reduction programs, ridesharing, and implementing improvements to bicycle facilities?	P&T	O
LRDP Mitigation Measure AIR-5: UC Berkeley will work with the City of Berkeley, ABAG and BAAQMD to ensure that emissions directly and indirectly associated with the campus are adequately accounted for and mitigated in applicable air quality planning efforts.	Has UC Berkeley worked with the City of Berkeley, ABAG and BAAQMD to ensure that emissions associated with the campus are adequately accounted for and mitigated in applicable air quality planning efforts?	EH&S, PEP	O
BIOLOGICAL RESOURCES			
LRDP Mitigation Measure BIO-1-a: UC Berkeley will, to the full feasible extent, avoid the disturbance or removal of nests of raptors and other special-status bird species when in active use. A pre-construction nesting survey for loggerhead shrike or raptors, covering a 100 yard perimeter of the project site, would be conducted during the months of March through July prior to commencement of any project that may impact suitable nesting habitat on the Campus Park and Hill Campus. The survey would be conducted by a qualified biologist no more than 30 days prior to initiation of disturbance to potential nesting habitat. In the Hill Campus, surveys would be conducted for new construction projects involving removal of trees and other natural vegetation. In the Campus Park, surveys would be conducted for construction projects involving	a) Has the project avoided the disturbance or removal of nests of raptors and other special-status bird species when in active use? b) Was a preconstruction nesting survey for loggerhead shrike or raptors, including a 100-yard site buffer, conducted by a qualified biologist prior to C-phase, between March 1 - July 31 and 30 days or less prior to disturbance to potential nesting habitat? c) Will the project remove mature trees within 100 feet of a Natural Area, Strawberry Creek, and/or the Hill Campus?	PM, OEP	P *and* W

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
BIOLOGICAL RESOURCES			
removal of mature trees within 100 feet of a Natural Area, Strawberry Creek, and the Hill Campus. If any of these species are found within the survey area, grading and construction in the area would not commence, or would continue only after the nests are protected by an adequate setback approved by a qualified biologist. To the full feasible extent, the nest location would be preserved, and alteration would only be allowed if a qualified biologist verifies that birds have either not begun egg-laying and incubation, or that the juveniles from those nests are foraging independently and capable of survival. A pre-construction survey is not required if construction activities commence during the non-nesting season (August through February).	d) If the answer to (c) is "yes", has a qualified biologist surveyed the site and established adequate nest setbacks where raptors or other special-status bird species have been found? e) If special-status bird species or raptors nest in the site or the zone described in (c), have nest locations been preserved, or altered only with approval of a qualified biologist?		
LRDP Mitigation Measure BIO-1-b: UC Berkeley will, to the full feasible extent, avoid the remote potential for direct mortality of special-status bats and destruction of maternal roosts. A pre-construction roosting survey for special-status bat species, covering the project site and any affected buildings, would be conducted during the months of March through August prior to commencement of any project that may impact suitable maternal roosting habitat on the Campus Park and Hill Campus. The survey would be conducted by a qualified biologist no more than 30 days prior to initiation of disturbance to potential roosting habitat. In the Hill Campus, surveys would be conducted for new construction projects prior to grading, vegetation removal, and remodel or demolition of buildings with isolated attics and other suitable roosting habitat. In the Campus Park, surveys would be conducted for construction projects prior to remodel or demolition of buildings with isolated attics. If any maternal roosts are detected during the months of March through August, construction activities would not commence, or would continue only after the roost is protected by an adequate setback approved by a qualified biologist. To the full feasible extent, the maternal roost location would be preserved, and alteration would only be allowed if a qualified biologist verifies that bats have completed rearing young, that the juveniles are foraging independently and capable of survival, and bats have been subsequently passively excluded from the roost location. A pre-construction survey is not required if construction activities commence outside the maternal roosting season (September through February).	Was a preconstruction roosting survey for special-status bat species -- including a 100-yard site buffer -- conducted by a qualified biologist prior to C-phase, between March 1 - July 31 and 30 days or less prior to disturbance to potential roosting habitat?	PM, OEP	P *and* W
	a) Were surveys conducted prior to grading, vegetation removal, demolition of buildings with isolated attics, or disturbance to any other suitable roosting habitat? b) If maternal roosts were detected during or between March and August, was construction delayed, or continued only after establishment of (an) adequate setback(s) by a qualified biologist? c) If any such maternal nests were found, have they been preserved, or only altered upon approval of a qualified biologist?	PM, OEP	P *and* C

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
BIOLOGICAL RESOURCES			
LRDP Mitigation Measure BIO-1-c: During planning and feasibility studies prior to development of specific projects or adoption of management plans in the Hill Campus, a habitat assessment would be conducted by a qualified biologist to assess any potential impacts on special-status species. Detailed surveys would be conducted during the appropriate season where necessary to confirm presence or absence of any special-status species. Where required to avoid a substantial adverse effect on such species, in consultation with the CDFG and the USFWS feasible changes to schedule, siting and design of projects or management plans would be developed and implemented.	a) Has a qualified biologist conducted a habitat assessment to assess any potential impacts on special-status species? b) Have detailed surveys been conducted during the appropriate season where necessary to confirm presence or absence of any special-status species? c) Where required to avoid a substantial adverse effect on such species, have feasible changes to the project been developed and implemented in consultation with the CDFG and the USFWS?	PM, OEP	P
Continuing Best Practice BIO-1-a: UC Berkeley will continue to implement the Campus Specimen Tree Program to reduce adverse effects to specimen trees and flora. Replacement landscaping will be provided where specimen resources are adversely affected, either through salvage and relocation of existing trees and shrubs or through new plantings of the same genetic strain, as directed by the Campus Landscape Architect.	a) Has the Campus Specimen Tree Program been implemented to reduce adverse impacts to specimen trees and flora? b) Has replacement landscaping as directed by the CLA been provided where specimen resources are adversely affected?	PM, OEP	P
Continuing Best Practice BIO-1-b: Implementation of the 2020 LRDP, particularly the Campus Park Guidelines, as well as the Landscape Master Plan and project-specific design guidelines, would provide for stewardship of existing landscaping, and use of replacement and expanded tree and shrub plantings to preserve and enhance the Campus Park landscape. Coast live oak and other native plantings would continue to be used in future landscaping, serving to partially replace any trees lost as a result of projects implemented under the 2020 LRDP.	a) Does the project provide stewardship of existing landscaping, and propose new landscaping in accordance with the 2020 LRDP -- particularly the Campus Park Guidelines --, as well as the Landscape Master Plan? b) Does the project use Coast Live Oak and other native plantings?	PM	P
Continuing Best Practice BIO-1-c: Because trees and other vegetation require routine maintenance, as trees age and become senescent, UC Berkeley would continue to undertake trimming, thinning, or removal, particularly if trees become a safety hazard. Vegetation in the Hill Campus requires continuing management for fire safety, habitat enhancement, and other objectives. This may include removal of mature trees such as native live oaks and non-native plantings of eucalyptus and pine.	a) Has UC Berkeley continued to trim, thin, or remove vegetation, especially where trees have become a safety hazard? b) Does the fire safety program continue to remove mature trees as necessary?	PP-CS, OEP	O

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
BIOLOGICAL RESOURCES			
Continuing Best Practice BIO-2-a: Implementation of the 2020 LRDP, including provisions that ensure proposed projects on the Campus Park will be designed to avoid Natural Preserves and provide for protection and enhancement of riparian habitat along Strawberry Creek as prescribed in the Campus Park Design Guidelines, will avoid substantial adverse effect on riparian habitat or sensitive natural communities. The Natural Preserves are comprised of two subzones: the riparian areas along the streamcourse, and other rustic woodlands adjacent to these riparian areas. The riparian areas are dominated by native and naturalized plants forming dense woodlands along the streamcourse: their width may vary in response to local conditions, but in general should be at least 100', centered on the streamcourse. Management of the Natural Preserves will be based on ecological principles, including replacing invasive exotic plants with native plants suited to this biotic zone, replacing unhealthy plants and plants at the ends of their natural lives, and preserving and enhancing the habitat value of the zone, as prescribed in the 2020 LRDP.	Does the project avoid Natural Preserves and riparian habitat within a 50' foot buffer in either direction from the centerline of any nearby streamcourse, in accordance with provisions of the 2020 LRDP?	PM, OEP	P
	Does management of the Natural Preserves follow ecological principles, including replacing invasive exotic plants with regionally-appropriate natives, replacing unhealthy and senescent plants, and preserving and enhancing habitat value, per nearby streamcourse, in accordance with provisions of the 2020 LRDP?	PP-CS	O
Continuing Best Practice BIO-2-b: The Strawberry Creek Management Plan will continue to be revised and implemented, in consultation with CDFG, to include recommendations for habitat restoration and enhancement along specific segments of the creek on both the Campus Park and Hill Campus. This will include minimum development setbacks, targets on invasive species controls, appropriate native plantings, and in-channel habitat improvements such as retention of large woody debris and creation of a refugio and deep plunge pools where feasible.	a) Has the Strawberry Creek Management Plan (SCMP) been revised and implemented, in consultation with CDFG, to include recommendations for habitat restoration and enhancement along specific segments of the creek on both the Campus Park and Hill Campus? b) Do SCMP guidelines include minimum development setbacks, invasive species controls, appropriate native plantings, and in-channel habitat improvements such as retention of large woody debris and creation of a refugio and deep plunge pools, where feasible?	EH&S	O

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
BIOLOGICAL RESOURCES			
Continuing Best Practice BIO-2-c: During planning and feasibility studies prior to development of specific projects or implementation of management plans in the Hill Campus, a habitat assessment will be conducted by a qualified biologist to identify and minimize potential impacts on riparian habitat, freshwater seeps, and native grassland sensitive natural communities. Detailed surveys will be conducted at appropriate times where necessary to confirm and map the extent of any sensitive natural communities. Where required to avoid a substantial adverse effect on such communities, in consultation with the CDFG, feasible changes to schedule, siting and design of projects or management plans will be developed and implemented.	a) Has a habitat assessment been conducted by a qualified biologist to identify and minimize potential impacts on riparian habitat, freshwater seeps, and native-grassland sensitive natural communities? b) Have detailed surveys been conducted at appropriate times where necessary to confirm and map the extent of any sensitive natural communities? c) Where required to avoid a substantial adverse effect on such communities, have feasible changes to the project been developed and implemented in consultation with the CDFG?	PEP, PM, OEP	P
Continuing Best Practice BIO-3: Proposed projects on the Campus Park and Hill Campus will be designed to avoid designated jurisdictional wetlands and waters along the Strawberry Creek channel. As necessary, wetlands will be mapped and the extent of jurisdictional waters verified by the Corps during planning and feasibility studies prior to development of specific projects or implementation of management plans in the Hill Campus. When unavoidable, any modifications to Strawberry Creek and other jurisdictional waters will be coordinated with jurisdictional agencies, including the CDFG, Corps, and the RWQCB as necessary.	a) Has the project been designed to avoid designated jurisdictional wetlands and waters along the Strawberry Creek channel? b) Have wetlands been mapped and jurisdictional waters extents been verified by the Corps, during studies prior to project design development or implementation of any management plan? c) Has any unavoidable modification of Strawberry Creek and/or other jurisdictional waters been coordinated with jurisdictional agencies, including the CDFG, Corps, and the RWQCB as necessary?	PEP, PM, OEP	P
Continuing Best Practice BIO-4-a: Proposed projects in the Hill Campus will be designed to avoid obstructing important established wildlife corridors to the full feasible extent. Before any new fencing is installed for security purposes, UC Berkeley will consider the effect of such fencing on opportunities for wildlife movement, and will avoid new or expanded fencing which would obstruct important established movement corridors.	a) Has the presence or absence of wildlife corridors on the project site been established? b) Was the project and project fencing designed to avoid obstructing important established wildlife corridors to the full feasible extent? c) Was fencing for the project planned to avoid obstructing wildlife movement?	PEP, OEP, PM	P *and* W

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
BIOLOGICAL RESOURCES			
Continuing Best Practice BIO-4-b: During planning and feasibility studies prior to development of specific projects or implementation of management plans in the Hill Campus, a habitat assessment will be conducted by a qualified biologist to identify and minimize potential impacts on wildlife movement opportunities, including avoidance of new fencing across Strawberry Creek and tributary drainages.	Has a habitat assessment been conducted by a qualified biologist to identify and minimize potential impacts on wildlife movement opportunities, including avoidance of new fencing across Strawberry Creek and tributary drainages?	PEP, PM, OEP	P
CULTURAL RESOURCES			
Continuing Best Practice CUL-1: In the event that paleontological resource evidence or a unique geological feature is identified during project planning or construction, the work would stop immediately and the find would be protected until its significance can be determined by a qualified paleontologist or geologist. If the resource is determined to be a "unique resource," a mitigation plan would be formulated and implemented to appropriately protect the significance of the resource by preservation, documentation, and/or removal, prior to recommencing activities.	a) Has any paleontological resource evidence or a unique geological feature been identified during project planning or construction?	PM, OEP	W
	b) If the answer to (a) is "yes" during C-phase, did work stop immediately and was the find protected, until its significance was determined by a qualified paleontologist or geologist? c) If the answer to (a) is "yes", was the resource determined to be a "unique resource"? d) If the answer to (c) is "yes", was a mitigation plan formulated and implemented to protect the resource significance by preservation, documentation, and/or removal, prior to recommencing activities?	PM, OEP	C
Continuing Best Practice CUL-2-a: If a project could cause a substantial adverse change in features that convey the significance of a primary or secondary resource, an Historic Structures Assessment (HSA) would be prepared. Recommendations of the HSA made in accordance with the Secretary of the Interior's Standards would be implemented, in consultation with the UC Berkeley Design Review Committee and the State Historic Preservation Office, such that the integrity of the significant resource is preserved and protected. Copies of all reports would be filed in the University Archives/Bancroft Library.	a) Could the project cause a substantial adverse change in features that convey the significance of a primary or secondary resource? b) If the answer to (a) is "yes", was an Historic Structures Assessment (HSA) prepared, and recommendations made in accordance with the Secretary of the Interior's Standards?	PEP	P

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
CULTURAL RESOURCES			
	c) If the answer to (b) is "yes", were the HSA recommendations implemented, in consultation with the DRC and the State Historic Preservation Office? d) If the answer to (b) is "yes", was a copy of the HSA filed in the University Archives/Bancroft Library?		
Continuing Best Practice CUL-2-b: For projects with the potential to cause adverse changes in the significance of historical resources, UC Berkeley would make informational presentations of all major projects in the City Environs in Berkeley to the Berkeley Planning Commission and the Berkeley Landmarks Preservation Commission for comment prior to schematic design review by the UC Berkeley Design Review Committee. Such projects in the City Environs in Oakland would similarly be presented to the Oakland Planning Commission and the Oakland Landmarks Preservation Advisory Board.	Has UC Berkeley made informational presentations on this project to the appropriate Planning Commission and, if relevant, to the appropriate Landmarks Preservation Commission or Advisory Board?	PEP	P
LRDP Mitigation Measure CUL-3: If, in furtherance of the educational mission of the University, a project would require the demolition of a primary or secondary resource, or the alteration of such a resource in a manner not in conformance with the Secretary of the Interior's Standards, the resource would be recorded to archival standards prior to its demolition or alteration.	a) Does the project require the demolition of a primary or secondary resource, or the alteration of such a resource in a manner not in conformance with the Secretary of the Interior's Standards? b) If the answer to (a) is "yes", has the resource been recorded to archival standards prior to demolition or alteration?	PM	P
LRDP Mitigation Measure CUL-4-a: UC Berkeley will create an internal document: a UCB Campus Archaeological Resources Sensitivity Map. The map will identify only the general locations of known and potential archaeological resources within the 2020 LRDP planning area. For the Hill Campus, the map will indicate the areas along drainages as being areas of high potential for the presence of archaeological resources. If any project would affect a resource, then either the project will be sited to avoid the location or, in consultation with a qualified archaeologist, UC Berkeley will determine the level of archaeological investigation that is appropriate for the project site and activity, prior to any construction or demolition activities.	Has UC Berkeley created the UCB Campus Archaeological Resources Sensitivity Map, identifying general locations of known/ potential archaeological resources, and, for the Hill Campus, areas along drainages?	PEP	O

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
CULTURAL RESOURCES			
Continuing Best Practice CUL-4-a: In the event resources are determined to be present at a project site, the following actions would be implemented as appropriate to the resource and the proposed disturbance: ▪ UC Berkeley shall retain a qualified archaeologist to conduct a subsurface investigation of the project site, to ascertain the extent of the deposit of any buried archaeological materials relative to the project's area of potential effects. The archaeologist would prepare a site record and file it with the California Historical Resource Information System. ▪ If the resource extends into the project's area of potential effects, the resource would be evaluated by a qualified archaeologist. UC Berkeley as lead agency would consider this evaluation in determining whether the resource qualifies as a historical resource or a unique archaeological resource under the criteria of CEQA Guidelines section 15064.5. If the resource does not qualify, or if no resource is present within the project area of potential effects, this would be noted in the environmental document and no further mitigation is required unless there is a discovery during construction (see below). ▪ If a resource within the project area of potential effect is determined to qualify as an historical resource or a unique archaeological resource in accordance with CEQA, UC Berkeley shall consult with a qualified archaeologist to mitigate the effect through data recovery if appropriate to the resource, or to consider means of avoiding or reducing ground disturbance within the site boundaries, including minor modifications of building footprint, landscape modification, the placement of protective fill, the establishment of a preservation easement, or other means that would permit avoidance or substantial preservation in place of the resource. If further data recovery, avoidance or substantial preservation in place is not feasible, UC Berkeley shall implement LRDP Mitigation Measure CUL-5, outlined below. ▪ A written report of the results of investigations would be prepared by a qualified archaeologist and filed with the University Archives/ Bancroft Library and the Northwest Information Center.	a) Have resources been found at the project site? If yes, answer (b) thru (e) below; otherwise, enter "n/a" for Questions (b) thru (e). b) Has a qualified archaeologist done subsurface investigation ascertaining extents of buried archaeological materials within project's area of potential impacts, and filed a site record with the California Historical Resource Information System, Bancroft Library / University Archives, and Northwest Information Center? c) Has UC Berkeley considered the archaeologist's report in determining whether the resource qualifies as a historical resource or a unique archaeological resource under CEQA Guidelines §15064.5? d) If the resource does not qualify under CEQA §15064.5, or if no resource is present, has this outcome been noted in the environmental document? e) If a resource does qualify, has a consulting archaeologist stipulated appropriate mitigations?	PEP	P

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
CULTURAL RESOURCES			
LRDP Mitigation Measure CUL-4-b: If a resource is discovered during construction (whether or not an archaeologist is present), all soil disturbing work within 35 feet of the find shall cease. UC Berkeley shall contact a qualified archaeologist to provide and implement a plan for survey, subsurface investigation as needed to define the deposit, and assessment of the remainder of the site within the project area to determine whether the resource is significant and would be affected by the project, as outlined in Continuing Best Practice CUL-3-a. UC Berkeley would implement the recommendations of the archaeologist.	a) Has a cultural resource been discovered during construction? b) If the answer to (a) is "yes", did all soil-disturbing work within 35 feet immediately cease? c) If the answer to (a) is "yes", did the project have a qualified archaeologist survey, investigate subsurface to define the deposit, and assess the entire site to determine whether the resource is significant and would be affected by the project? d) Has the project implemented the recommendations of the archaeologist?	PM, OEP	C
Continuing Best Practice CUL-4-b: In the event human or suspected human remains are discovered, UC Berkeley would notify the County Coroner who would determine whether the remains are subject to his or her authority. The Coroner would notify the Native American Heritage Commission if the remains are Native American. UC Berkeley would comply with the provisions of Public Resources Code Section 5097.98 and CEQA Guidelines Section 15064.5(d) regarding identification and involvement of the Native American Most Likely Descendant and with the provisions of the California Native American Graves Protection and Repatriation Act to ensure that the remains and any associated artifacts recovered are repatriated to the appropriate group, if requested.	a) Have (suspected) human remains been found at the project site? b) If the answer to (a) is "yes", was the County Coroner immediately notified? c) If the answer to (a) is "yes", did the project comply with Public Resources Code §5097.98, with CEQA Guidelines §15064.5(d), and with NAGPRA re notification of the appropriate Native American representatives?	PM, OEP	C
Continuing Best Practice CUL-4-c: Prior to disturbing the soil, contractors shall be notified that they are required to watch for potential archaeological sites and artifacts and to notify UC Berkeley if any are found. In the event of a find, UC Berkeley shall implement LRDP Mitigation Measure CUL-4-b.	Have all contractors who have reason to disturb site soils been notified by the project that they are required to watch for potential archaeological sites and artifacts and to notify UC Berkeley if any are found?	PM, OEP	W

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
CULTURAL RESOURCES			
LRDP Mitigation Measure CUL-5: If, in furtherance of the educational mission of the University, a project would require damage to or demolition of a significant archaeological resource, a qualified archaeologist shall, in consultation with UC Berkeley: ▪ Prepare a research design and archaeological data recovery plan that would attempt to capture those categories of data for which the site is significant, and implement the data recovery plan prior to or during development of the site. ▪ Perform appropriate technical analyses, prepare a full written report and file it with the appropriate information center and provide for the permanent curation of recovered materials.	a) Does this project require damage to or demolition of a significant archaeological resource? b) If the answer to (a) is "yes", has a qualified archaeologist -- in consultation with UC Berkeley -- prepared a research design/data recovery plan, performed appropriate technical analyses, and written and appropriately filed a full report, and arranged permanent curation of recovered materials? c) If the answer to (a) is "yes", has the archaeologist -- in consultation with UC Berkeley -- provided for permanent curation of recovered materials?	PEP	P
GEOLOGY, SEISMICITY AND SOILS			
Continuing Best Practice GEO-1-a: UC Berkeley will continue to comply with the CBC and the *University Policy on Seismic Safety*.	Has the project complied with the California Building Code and the University Policy on Seismic Safety?	PM	P
Continuing Best Practice GEO-1-b: Site-specific geotechnical studies will be conducted under the supervision of a California Registered Engineering Geologist or licensed geotechnical engineer and UC Berkeley will incorporate recommendations for geotechnical hazard prevention and abatement into project design.	a) Have site-specific geotechnical studies been conducted under the supervision of a California Registered Engineering Geologist or licensed geotechnical engineer? b) Has the project incorporated the Geologist's recommendations for geotechnical hazard prevention and abatement into project design?	PM	P
Continuing Best Practice GEO-1-c: The Seismic Review Committee (SRC) shall continue to review all seismic and structural engineering design for new and renovated existing buildings on campus and ensure that it conforms to the California Building Code and the *University Policy on Seismic Safety*.	Has SRC reviewed the seismic and structural design for this project, to ensure that it conforms to the California Building Code and the University Policy on Seismic Safety?	PM	P

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
GEOLOGY, SEISMICITY AND SOILS			
Continuing Best Practice GEO-1-d: UC Berkeley shall continue to use site-specific seismic ground motion specifications developed for analysis and design of campus projects. The information provides much greater detail than conventional codes and is used for performance-based analyses.	Does the project use site-specific seismic ground motion specifications?	PM	P
Continuing Best Practice GEO-1-e: UC Berkeley will continue to implement the SAFER Program. Through this program, UC Berkeley has already identified all existing buildings in need of upgrades and is currently performing seismic upgrades on several of these buildings.	Has UC Berkeley continued to implement the SAFER Program?	PEP	P
Continuing Best Practice GEO-1-f: Through the Office of Emergency Preparedness, UC Berkeley will continue to implement programs and projects in emergency planning, training, response, and recovery. Each campus building housing Berkeley students, faculty and staff has a Building Coordinator who prepares building response plans and coordinates education and planning for all building occupants.	Has UC Berkeley continued, through the OEP, to implement programs and projects in emergency planning, training, response, and recovery?	OEP	O
Continuing Best Practice GEO-1-g: As stipulated in the *University Policy on Seismic Safety*, the design parameters for specific site peak acceleration and structural reinforcement will be determined by the geotechnical and structural engineer for each new or rehabilitation project proposed under the 2020 LRDP. The acceptable level of actual damage that could be sustained by specific structures would be calculated based on geotechnical information obtained at the specific building site.	a) Have the design parameters for specific site peak acceleration and structural reinforcement been determined by the geotechnical and structural engineer for this project? b) Has the acceptable level of actual damage that could be sustained by the project been calculated based on geotechnical information obtained on-site?	PM	P
Continuing Best Practice GEO-1-h: Hill Campus dewatering would be carried out as needed and would be monitored and maintained by qualified engineers.	Has Hill Campus dewatering been carried out as needed, and monitored and maintained by qualified engineers?	PP-CS, EH&S	O
Continuing Best Practice GEO-1-i: The site-specific geotechnical studies conducted under GEO-1-b will include an assessment of landslide hazard, including seismic vibration and other factors contributing to slope stability.	Has an assessment of landslide hazard, including seismic vibration and other factors contributing to slope stability, been included in the geotechnical study specified in GEO-1-b, above?	PM	P

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
GEOLOGY, SEISMICITY AND SOILS			
Continuing Best Practice GEO-2: Campus construction projects with potential to cause erosion or sediment loss, or discharge of other pollutants, would include the campus Stormwater Pollution Prevention Specification. This specification includes by reference the "Manual of Standards for Erosion and Sediment Control" of the Association of Bay Area Governments and requires that each large and exterior project develop an Erosion Control Plan.	Does the project construction contract include and require execution of the campus Stormwater Pollution Prevention Specification?	PM, OEP	W
	Has an EH&S-approved Erosion Control Plan been prepared for this project?	PM, OEP	W *and* C
HAZARDOUS MATERIALS			
Continuing Best Practice HAZ-1: UC Berkeley shall continue to implement the same (or equivalent) health and safety plans, programs, practices and procedures related to the use, storage, disposal, or transportation of hazardous materials and wastes (including chemical, radioactive, and biohazardous materials and waste) during the 2020 LRDP planning horizon. These include, but are not necessarily limited to, requirements for safe transportation of hazardous materials, EH&S training programs, the Hazard Communication Program, publication and promulgation of drain disposal guidelines, the requirement that laboratories have Chemical Hygiene Plans, the Chemical Inventory Database, the Toxic Use Reduction Program, the Aboveground Storage Tank Spill Prevention Control and Countermeasure Plan, monitoring of underground storage tanks, hazardous waste disposal policies, the Chemical Exchange Program, the Hazardous Waste Minimization Program, the Biosafety Program, the Medical Waste Management Program, and the Radiation Safety Program. These programs may be subject to modification as more stringent standards are developed or if the programs become obsolete through replacement by other programs that incorporate similar health and safety protection measures.	Has UC Berkeley continued to implement the same (or equivalent) health and safety plans, programs, practices and procedures related to use, storage, disposal, or transportation of hazardous materials and wastes as those indicated in the 2020 LRDP EIR (see Chapter 4.6, section 4.6.4 and Volume 2, Appendix E)?	EH&S	O

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
HAZARDOUS MATERIALS			
Continuing Best Practice HAZ-2: UC Berkeley shall continue to implement the same (or equivalent) programs related to laboratory animal use during the 2020 LRDP planning horizon, including, but not necessarily limited to, compliance with U.S. Public Health Service Regulations, the National Research Council Guide for the Care and Use of Laboratory Animals, and Animal Welfare Act regulations. These programs may be subject to modification as more stringent standards are developed or if the programs become obsolete through replacement by other programs that incorporate similar health and safety protection measures.	Has UC Berkeley continued to implement the same (or equivalent) programs related to laboratory animal use as those indicated in the 2020 LRDP EIR (see Chapter 4.6, section 4.6.4 and Volume 2, Appendix E)?	EH&S	O
Continuing Best Practice HAZ-3: UC Berkeley shall continue to implement the same (or equivalent) programs related to transgenic materials use during the 2020 LRDP planning horizon, including, but not necessarily limited to, compliance with the NIH Guidelines for Research Involving Recombinant DNA Molecules, USDA requirements for open field-based research involving transgenic plants, and requiring registration with EH&S for all research involving transgenic plants. These programs may be subject to modification as more stringent standards are developed or if the programs become obsolete through replacement by other programs that incorporate similar health and safety protection measures.	Has UC Berkeley continued to implement the same (or equivalent) programs related to transgenic materials use as those indicated in the 2020 LRDP EIR (see Chapter 4.6, section 4.6.4 and Volume 2, Appendix E)?	EH&S	O
Continuing Best Practice HAZ-4: UC Berkeley shall continue to perform site histories and due diligence assessments of all sites where ground-disturbing construction is proposed, to assess the potential for soil and groundwater contamination resulting from past or current site land uses at the site or in the vicinity. The investigation will include review of regulatory records, historical maps and other historical documents, and inspection of current site conditions. UC Berkeley would act to protect the health and safety of workers or others potentially exposed should hazardous site conditions be found.	a) Has the project performed a site history and due diligence assessments of potential for soil and ground-water contamination resulting from past or current site land uses, where ground-disturbing construction is proposed? b) Did the investigation include review of regulatory records, historical maps and other historical documents, and inspection of current site conditions? c) Were hazardous site conditions (conditions exposing humans to hazardous materials risks) found during the requisite investigations?	PM	P
	d) If the answer to (c) above is "yes", has the project protected the health and safety of workers or others potentially exposed, should hazardous site conditions be found?	PM	W *and* C

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
HAZARDOUS MATERIALS			
Continuing Best Practice HAZ-5: UC Berkeley shall continue to perform hazardous materials surveys prior to capital projects in existing campus buildings. The campus shall continue to comply with federal, state, and local regulations governing the abatement and handling of hazardous building materials and each project shall address this requirement in all construction.	Has the project performed a hazardous materials survey prior to commencement of site work?	PM	W
	Has the project complied, in all aspects of construction, with all applicable federal, state, and local regulations governing the abatement and handling of hazardous building materials?	PM	C
HYDROLOGY AND WATER QUALITY			
Continuing Best Practice HYD-1-a: During the plan check review process and construction phase monitoring, UC Berkeley (EH&S) will verify that the proposed project complies with all applicable requirements and BMPs.	During the plan check review process and construction phase monitoring, has EH&S verified that the proposed project complies with all applicable requirements and BMPs?	PM, EH&S	W*and* C
Continuing Best Practice HYD-1-b: UC Berkeley shall continue implementing an urban runoff management program containing BMPs as published in the Strawberry Creek Management Plan, and as developed through the campus municipal Stormwater Management Plan completed for its pending Phase II MS4 NPDES permit. UC Berkeley will continue to comply with the NPDES stormwater permitting requirements by implementing construction and post construction control measures and BMPs required by project-specific SWPPPs and, upon its approval, by the Phase II SWMP to control pollution. Stormwater Pollution Prevention Plans would be prepared as required by the appropriate regulatory agencies including the Regional Water Quality Control Board and where applicable, according to the UC Berkeley Stormwater Pollution Prevention Specification to prevent discharge of pollutants and to minimize sedimentation resulting from construction and the transport of soils by construction vehicles.	a) Has UC Berkeley continued to implement an urban runoff management program containing BMPs as published in the Strawberry Creek Management Plan, and as developed through the campus municipal Stormwater Management Plan? b) Has UC Berkeley continued to implement construction and post construction control measures and BMPs required by project-specific SWPPPs and by the Phase II SWMP? c) Have plans been prepared as required by the appropriate regulatory agencies and, where applicable, according to the UC Berkeley Stormwater Pollution Prevention Specification?	EH&S	O

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
HYDROLOGY AND WATER QUALITY			
Continuing Best Practice HYD-1-c: UC Berkeley shall maintain a campus-wide educational program regarding safe use and disposal of facilities maintenance chemicals and laboratory chemicals, to prevent discharge of these pollutants to Strawberry Creek and the campus storm drains.	Has UC Berkeley maintained a campus-wide educational program regarding safe use and disposal of facilities maintenance chemicals and laboratory chemicals?	EH&S	O
Continuing Best Practice HYD-1-d: UC Berkeley shall continue to implement the campus Drain Disposal Policy and Drain Disposal Guidelines which provide inspection, training, and oversight on use of the drains for chemical disposal for academic and research laboratories as well as shops and physical plant operations, to prevent harm to the sanitary sewer system.	Has UC Berkeley continued to implement the campus Drain Disposal Policy and Drain Disposal Guidelines?	EH&S	O
Continuing Best Practice HYD-2-a: In addition to Hydrology Continuing Best Practices 1-a and 1-b above, UC Berkeley will continue to review each development project, to determine whether project runoff would increase pollutant loading. If it is determined that pollutant loading could lead to a violation of the Basin Plan, UC Berkeley would design and implement the necessary improvements to treat stormwater. Such improvements could include grassy swales, detention ponds, continuous centrifugal system units, catch basin oil filters, disconnected downspouts and stormwater planter boxes.	a) Has the project been reviewed to determine whether project runoff would increase pollutant loading? b) Has it been determined through EH&S review that pollutant loading could lead to a violation of the Basin Plan? c) If the answer to (b) above is "yes", has the project designed and implemented the necessary improvements to treat stormwater?	PM	P *and* W
Continuing Best Practice HYD-2-b: Where feasible, parking would be built in covered parking structures and not exposed to rain to address potential stormwater runoff pollutant loads. See also HYD-2-a.	Will the parking for this project be built in covered parking structures and not exposed to rain?	PEP	P
Continuing Best Practice HYD-2-c: Landscaped areas of development sites shall be designed to absorb runoff from rooftops and walkways. The Campus Landscape Architect shall ensure that open or porous paving systems be included in project designs wherever feasible, to minimize impervious surfaces and absorb runoff.	a) Have landscaped areas of the site been designed to absorb runoff from rooftops and walkways? b) Has the Campus Landscape Architect ensured that open or porous paving systems have been included in this project, wherever feasible?	PM	P

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
HYDROLOGY AND WATER QUALITY			
Continuing Best Practice HYD-2-d: UC Berkeley shall continue to develop and implement the recommendations of the Strawberry Creek Management Plan and its updates, and construct improvements as appropriate. These recommendations include, but shall not be limited to, minimization of the amount of land exposed at any one time during construction as feasible; use of temporary vegetation or mulch to stabilize critical areas where construction staging activities must be carried out prior to permanent cover of exposed lands; installation of permanent vegetation and erosion control structures as soon as practical; protection and retention of natural vegetation; and implementation of post-construction structural and non-structural water quality control techniques.	a) Has this project implemented the recommendations of the Strawberry Creek Management Plan and its updates? b) Has the project: protected/retained natural vegetation, and implemented post-construction structural and non-structural water quality control?	PM	W
	Has the project: minimized amount of land exposed at any one time, used temporary vegetation or mulch to stabilize staging areas, and installed permanent vegetation/erosion control as soon as practical?	PM, OEP	C
Continuing Best Practice HYD-3: In addition to Hydrology Continuing Best Practices 1-a, 1-b, 2-a and 2-c above, UC Berkeley will continue to review each development project, to determine whether rainwater infiltration to groundwater is affected. If it is determined that existing infiltration rates would be adversely affected, UC Berkeley would design and implement the necessary improvements to retain and infiltrate stormwater. Such improvements could include retention basins to collect and retain runoff, grassy swales, infiltration galleries, planter boxes, permeable pavement, or other retention methods. The goal of the improvement should be to ensure that there is no net decrease in the amount of water recharged to groundwater that serves as freshwater replenishment to Strawberry Creek. The improvement should maintain the volume of flows and times of concentration from any given site at pre-development conditions.	a) Has the project been reviewed to determine whether rainwater infiltration to groundwater is adversely affected by the design? b) Would the design adversely affect rainwater infiltration to groundwater? c) If the answer to (b) above is "yes", has the project designed and implemented improvements to retain and infiltrate stormwater, and maintain the volume of flows and times of concentration at pre-development conditions?	PM	P
Continuing Best Practice HYD-4-a: In addition to Hydrology Continuing Best Practices 1-a, 1-b and 2-c, the campus storm drain system would be maintained and cleaned to accommodate existing runoff.	Has the campus storm drain system been maintained and cleaned to accommodate existing runoff?	PP-CS	O
Continuing Best Practice HYD-4-b: For 2020 LRDP projects in the City Environs (excluding the Campus Park or Hill Campus) improvements would be coordinated with the City Public Works Department.	Has this project been coordinated with the City Public Works Department?	PEP, PM	P

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
HYDROLOGY AND WATER QUALITY			
Continuing Best Practice HYD-4-c: Development that encroaches on creek channels and riparian zones would be prohibited. Creek channels would be preserved and enhanced, especially in the Campus Park area. An undisturbed buffer zone would be maintained between proposed 2020 LRDP projects and creek channels.	a) Does this project encroach on creek channels? b) Has an undisturbed buffer zone been maintained between this project and creek channels?	PEP	P
	a) Have creek channels been preserved and enhanced, especially in the Campus Park area? b) Has an undisturbed buffer zone been maintained between proposed 2020 LRDP projects and creek channels?	PEP	O
Continuing Best Practice HYD-4-d: UC Berkeley shall continue to develop and implement a maintenance program for Strawberry Creek, as described in the Strawberry Creek Management Plan and its updates. Actions shall include but not be limited to: clear trash racks, catch basins, channels, ponds, bridges and over-crossing structures of debris that could block flows and increase flooding potential in all campus creeks. Cleaning of debris shall be done during storm events and prior to the start of the rainy season as part of routine campus grounds maintenance.	a) Has UC Berkeley continued to develop and implement a maintenance program for Strawberry Creek, as described in the Strawberry Creek Management Plan and its updates? b) Have trash racks, catch basins, channels, ponds, bridges and over-crossing structures been cleared of debris that could block flows? c) Has clearing of debris been done during storm events and prior to the start of the rainy season as part of routine campus grounds maintenance?	PP-CS, EH&S	O
Continuing Best Practice HYD-4-e: UC Berkeley shall continue to manage runoff into storm drain systems such that the aggregate effect of projects implementing the 2020 LRDP is no net increase in runoff over existing conditions.	Has UC Berkeley continued to manage runoff into storm drain systems such that the aggregate effect of projects implementing the 2020 LRDP is no net increase in runoff over existing conditions?	PEP, EH&S, PP-CS	O
LRDP Mitigation Measure HYD-5: In addition to Hydrology Continuing Best Practices 1-a, 1-b, 2-c, 4-a, 4-c and 4-e, projects proposed with potential to alter drainage patterns in the Hill Campus would be accompanied by a hydrologic modification analysis, and would incorporate a plan to prevent increases of flow from the newly developed site, preventing downstream flooding and substantial siltation and erosion.	a) Has this project implemented Hydrology Continuing Best Practices 1-a, 1-b, 2-c, 4-a, 4-c and 4-e? b) Has a hydrologic modification analysis been performed for this project? c) Has the project incorporated a plan to prevent increases of flow from the newly developed site?	PM	P

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
HYDROLOGY AND WATER QUALITY			
LRDP Mitigation Measure HYD-6: In addition to implementation of LRDP Mitigation Measure HYD-5, prior to final design, UC Berkeley will review the plans for all structures to be constructed in the 100-year floodplain for compliance with FEMA requirements for nonresidential structures. This review will include a hydrologic study and recommendations to eliminate any potential impacts to the 100-year floodplain. For structures placed within the 100-year floodplain, flood control devices will be utilized in each development to direct flows toward areas where flood hazards will be minimal. These actions would ensure that the implementation of the 2020 LRDP would not impede or redirect flows in a manner that results in flooding.	a) Has the project implemented LRDP Mitigation Measure HYD-5? b) Is the project sited within a 100-year floodplain? c) If the answer to (b) is "yes", has UC Berkeley reviewed the project for compliance with FEMA requirements for nonresidential structures, the review including a hydrologic study and recommendations to eliminate any potential impacts to the 100-year floodplain? d) If the answer to (b) is "yes", does the project incorporate flood control devices to direct flows toward areas where flood hazards will be minimal?	PM	P
LAND USE			
Continuing Best Practice LU-2-a: New projects in the Campus Park would as a general rule conform to the Campus Park Guidelines. The Guidelines include specific provisions to ensure projects at the city interface create a graceful transition from campus to city.	Does the project conform to the Campus Park Guidelines?	PEP	P
Continuing Best Practice LU-2-b: UC Berkeley would make informational presentations of all major projects in the City Environs in Berkeley to the Berkeley Planning Commission and, if relevant, the Berkeley Landmarks Preservation Commission for comment prior to schematic design review by the UC Berkeley Design Review Committee. Major projects in the City Environs in Oakland would similarly be presented to the Oakland Planning Commission and, if relevant, to the Oakland Landmarks Preservation Advisory Board. Whenever a project in the City Environs is under consideration by the UC Berkeley DRC, a staff representative designated by the city in which it is located would be invited to attend and comment on the project.	a) Has the project been presented to the Berkeley or Oakland Planning Commission and Berkeley or Oakland Landmarks (Preservation) Commission/ Advisory Board (if relevant) for comment prior to schematic design review by the UC Berkeley DRC? b) For a project in the City Environs, has a staff representative designated by the city in which the project is located been invited to attend the UC Berkeley DRC to comment on the project?	PEP	P

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
LAND USE			
Continuing Best Practice LU-2-c: Each individual project built in the Hill Campus or the City Environs under the 2020 LRDP would be assessed to determine whether it could pose potential significant land use impacts not anticipated in the 2020 LRDP, and if so, the project would be subject to further evaluation under CEQA. In general, a project in the Hill Campus or the City Environs would be assumed to have the potential for significant land use impacts if it: ▪ Includes a use that is not permitted within the city general plan designation for the project site, or ▪ Has a greater number of stories and/or lesser setback dimensions than could be permitted for a project under the relevant city zoning ordinance as of July 2003.	a) If the project is within the Hill Campus or the City Environs, has it been assessed to determine whether it could pose potential significant land use impacts not anticipated in the 2020 LRDP? b) If the answer to (a) is "yes", could the project pose potential significant land use impacts not anticipated in the 2020 LRDP? c) If the answer to (b) is yes, has the project been further evaluated per CEQA?	PEP	P
Continuing Best Practice LU-2-d: Assuming the City adopts the Southside Plan without substantive changes, the University would as a general rule use, as its guide for the location and design of University projects implemented under the 2020 LRDP within the area of the Southside Plan, the design guidelines and standards prescribed in the Southside Plan, which would supersede provisions of the City's prior zoning policy.	If the project is within the area of the Southside Plan, and if the Southside Plan has been adopted without substantive changes, has the project location and design been guided by Southside Plan design guidelines and standards?	PEP	P
Continuing Best Practice LU-2-e: To the extent feasible, University housing projects in the 2020 LRDP Housing Zone would not have a greater number of stories nor lesser setback dimensions than could be permitted for a project under the relevant city zoning ordinance as of July 2003.	If the project is a University housing project in the 2020 LRDP Housing Zone, does it have a greater number of stories or lesser setback dimensions than could be permitted for a project under the relevant city zoning ordinance as of July 2003?	PEP	P

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
NOISE			
Continuing Best Practice NOI-2: Mechanical equipment selection and building design shielding would be used, as appropriate, so that noise levels from future building operations would not exceed the City of Berkeley Noise Ordinance limits for commercial areas or residential zones as measured on any commercial or residential property in the area surrounding a project proposed to implement the 2020 LRDP. Controls that would typically be incorporated to attain this outcome include selection of quiet equipment, sound attenuators on fans, sound attenuator packages for cooling towers and emergency generators, acoustical screen walls, and equipment enclosures.	Does the project design use shielding and mechanical equipment such that building operations noise would not exceed CoB Noise Ordinance limits, as measured on any commercial or residential property adjacent to the project?	PM	P
LRDP Mitigation Measure NOI-3: The University would comply with building standards that reduce noise impacts to residents of University housing to the full feasible extent; additionally, any housing built in areas where noise exposure levels exceed 60 L_{dn} would incorporate design features to minimize noise exposures to occupants.	a) Does the proposed University housing project comply with building standards that reduce noise impacts to residents of University housing to the full feasible extent? b) Is this housing project in an area where noise exposure levels exceed 60L_{dn}? c) If the answer to (b) is "yes", does this project incorporate design features to minimize noise exposures to occupants?	PM	P

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
NOISE			
Continuing Best Practice NOI-4-a: The following measures would be included in all construction projects: ▪ Construction activities will be limited to a schedule that minimizes disruption to uses surrounding the project site as much as possible. Construction outside the Campus Park area will be scheduled within the allowable construction hours designated in the noise ordinance of the local jurisdiction to the full feasible extent, and exceptions will be avoided except where necessary. ▪ As feasible, construction equipment will be required to be muffled or controlled. ▪ The intensity of potential noise sources will be reduced where feasible by selection of quieter equipment (e.g. gas or electric equipment instead of diesel powered, low noise air compressors). ▪ Functions such as concrete mixing and equipment repair will be performed off-site whenever possible. For projects requiring pile driving: ▪ With approval of the project structural engineer, pile holes will be pre-drilled to minimize the number of impacts necessary to seat the pile. ▪ Pile driving will be scheduled to have the least impact on nearby sensitive receptors. ▪ Pile drivers with the best available noise control technology will be used. For example, pile driving noise control may be achieved by shrouding the pile hammer point of impact, by placing resilient padding directly on top of the pile cap, and/or by reducing exhaust noise with a sound-absorbing muffler. ▪ Alternatives to impact hammers, such as oscillating or rotating pile installation systems, will be used where possible.	a) Has construction been scheduled to minimize disruption to surrounding uses, and -- if in the Campus Environs -- scheduled within the applicable jurisdiction's noise ordinance allowable construction hours to the full feasible extent, and exceptions avoided? b) Has construction equipment been muffled, controlled, or selected as the quieter feasible equipment option? c) Have noisy construction functions been performed off-site whenever possible? d) Does the project require pile driving? e) If the answer to (d) is "yes", have: pile holes been pre-drilled; pile-driving scheduled to minimize impacts on sensitive receptors; quietest technology been used; and, oscillating or rotating pile installation been used rather than impact hammers?	PM	W *and* C

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
NOISE			
Continuing Best Practice NOI-4-b: UC Berkeley will continue to precede all new construction projects with community outreach and notification, with the purpose of ensuring that the mutual needs of the particular construction project and of those impacted by construction noise are met, to the extent feasible.	Has community outreach and notification re this project been implemented prior to construction?	PM	P
LRDP Mitigation Measure NOI-4: UC Berkeley will develop a comprehensive construction noise control specification to implement additional noise controls, such as noise attenuation barriers, siting of construction laydown and vehicle staging areas, and the measures outlined in Continuing Best Practice NOI-4-a as appropriate to specific projects. The specification will include such information as general provisions, definitions, submittal requirements, construction limitations, requirements for noise and vibration monitoring and control plans, noise control materials and methods. This document will be modified as appropriate for a particular construction project and included within the construction specification.	Has a comprehensive construction noise control specification been developed, for implementation of noise controls and including general provisions, definitions, submittal requirements, construction limitations, noise/vibration monitoring and control plans, noise control materials and methods?	EH&S	O
	Has the noise specification been modified as appropriate for this project and included within the construction specification for this project?	PM	W

LRDP Mitigation Measure NOI-5: The following measures will be implemented to mitigate construction vibration:
▪ UC Berkeley will conduct a pre-construction survey prior to the start of pile driving. The survey will address susceptibility ratings of structures, proximity of sensitive receivers and equipment/operations, and surrounding soil conditions. This survey will document existing conditions as a baseline for determining changes subsequent to pile driving.
▪ UC Berkeley will establish a vibration checklist for determining whether or not vibration is an issue for a particular project.
▪ Prior to conducting vibration-causing construction, UC Berkeley will evaluate whether alternative methods are available, such as:
  ▪ Using an alternative to impact pile driving such as vibratory pile drivers or oscillating or rotating pile installation methods.
  ▪ Jetting or partial jetting of piles into place using a water injection at the tip of the pile.
▪ If vibration monitoring is deemed necessary, the number, type, and location of vibration sensors would be determined by UC Berkeley.
	a(i)) Will the project implement pile driving?
	a(ii)) Will the project construction generate vibration?
	b) If the answer to (a(i)) is "yes", has the site been surveyed for susceptibility ratings of structures, proximity of sensitive receivers and equipment/ operations, and surrounding soil conditions?
	c) Has UC Berkeley established a vibration checklist?
	d) If the answer to (a(ii)) is yes, has the project evaluated such alternative methods as: oscillating, rotating, or vibrating pile driving; and, jetting piles into place via water-injection?
	e) If the answer to (a(ii)) is "yes" and if vibration monitoring has been deemed necessary, has the project determined/implemented the appropriate number, type, and location of vibration sensors?
		PM	P

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
POPULATION AND HOUSING			
No significant impacts identified.			
PUBLIC SERVICES			
Continuing Best Practice PUB-1.1: UCPD would continue its partnership with the City of Berkeley police department to review service levels in the City Environs.	Has UCPD continued its partnership with the City of Berkeley police department to review service levels in the City Environs?	UCPD	O
Continuing Best Practice PUB-2.1-a: UC Berkeley would continue to comply with Title 19 of the California Code of Regulations, which mandates firebreaks of up to 100 feet around buildings or structures in, upon or adjoining any mountainous, forested, brush- or grass-covered lands.	Has UC Berkeley continued to comply with CCR Title 19 regarding firebreaks of up to 100 feet around buildings or structures in, upon or adjoining any mountainous, forested, brush- or grass-covered lands?	CFM, OEP	O
Continuing Best Practice PUB-2.1-b: UC Berkeley would continue on-going implementation of the Hill Area Fire Fuel Management Program.	Has UC Berkeley continued on-going implementation of the Hill Area Fire Fuel Management Program?	OEP	O
Continuing Best Practice PUB-2.1-c: UC Berkeley would continue to plan and implement programs to reduce risk of wildland fires, including plan review and construction inspection programs that ensure that campus projects incorporate fire prevention measures.	Has UC Berkeley continued to plan and implement programs to reduce risk of wildland fires, including plan review and construction inspection programs that ensure that campus projects incorporate fire prevention measures?	OEP, PEP, CFM	O
Continuing Best Practice PUB-2.1-d: UC Berkeley would continue to plan and collaborate with other agencies through participation in the Hills Emergency Forum.	Has UC Berkeley continued to participate in the Hills Emergency Forum?	OEP	O
Continuing Best Practice PUB-2.3: UC Berkeley would continue its partnership with LBNL, ACFD, and the City of Berkeley to ensure adequate fire and emergency service levels to the campus and UC facilities. This partnership shall include consultation on the adequacy of emergency access routes to all new University buildings.	Has UC Berkeley continued its partnership with LBNL, ACFD, and CoB to ensure adequate emergency access routes, fire and emergency service levels to the campus and UC facilities?	PEP, CFM	O

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
PUBLIC SERVICES			
LRDP Mitigation Measure PUB-2.4-a: In order to ensure adequate access for emergency vehicles when construction projects would result in temporary lane or roadway closures, campus project management staff would consult with the UCPD, campus EH&S, the BFD and ACFD to evaluate alternative travel routes and temporary lane or roadway closures prior to the start of construction activity. UC Berkeley will ensure the selected alternative travel routes are not impeded by UC Berkeley activities.	a) Has the project consulted UCPD, EH&S, BFD and ACFD to evaluate alternative travel routes and temporary lane or roadway closures prior to the start of construction activity? b) Has the project ensured that the selected alternative travel routes are not impeded by UC Berkeley activities?	PM	W*and* C
LRDP Mitigation Measure PUB-2.4-b: To the extent feasible, the University would maintain at least one unobstructed lane in both directions on campus roadways at all times, including during construction. At any time only a single lane is available due to construction-related road closures, the University would 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, UC Berkeley would provide signage indicating alternative routes. In the case of Centennial Drive, any complete road closure would be limited to brief interruptions of traffic required by construction operations.	a) Has the project maintained at least one unobstructed lane in both directions on campus roadways at all times? b) Where construction has caused only a single lane to be available, has the project provided a temporary traffic signal, signal carriers (i.e. flagpersons), or other appropriate traffic controls to allow travel in both directions? c) When and wherever construction activities require the complete closure of a roadway, has the project provided signage indicating alternative routes? d) If the project occurs at Centennial Drive, would roadway interruptions caused by construction be brief?	PM	C
Continuing Best Practice PUB-2.4: To the extent feasible, for all projects in the City Environs, the University would include the undergrounding of surface utilities along project street frontages, in support of Berkeley General Plan Policy S-22.	If the project is in the City Environs, will it underground utilities along street frontages?	PEP, PM	P
	Has the project in the City Environs undergrounded utilities along street frontages?	PM	W *and* C

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
PUBLIC SERVICES			
Continuing Best Practice PUB-4.3: Any new UC Berkeley recreation facilities would be developed in accordance with design principles and guidelines established in the 2020 LRDP. All relevant 2020 LRDP mitigation measures and continuing best practices would be incorporated into the design and construction of new facilities. For each individual project, the University would evaluate potential environmental impacts and prepare all required documents in full accordance with CEQA.	a) Has this recreation facility project been planned and designed according to 2020 LRDP design principles and guidelines? b) Does the recreation facility project incorporate all relevant 2020 LRDP mitigation measures and continuing best practices? c) Has the University evaluated the project for potential environmental impacts and prepared all required documents in full accordance with CEQA?	PEP	P
LRDP Mitigation Measure PUB-4.4: Before implementing any change to the use of any existing recreational facility, UC Berkeley would conduct a study to ensure that the loss of recreational use would not result in increased use at other facilities to the extent it would result in the physical deterioration of those facilities. If such deterioration is found to have the potential to occur, then the University would build replacement recreation facilities or take other measures to minimize overuse and deterioration of existing facilities in connection with removal of or reduction in use at the recreation facility in question. Any such facilities and/or measures would be reviewed in accordance with CEQA.	a) Does this project change an existing recreational facility? b) If the answer to (a) is "yes", has the project conducted a study to ensure that any loss of recreational use would not result in increased use at other facilities to the extent it would result in the physical deterioration of those facilities? c) If the answer to (b) is "yes", has the University built replacement recreation facilities or taken other measures to minimize overuse and deterioration of existing facilities, and reviewed these measures in accordance with CEQA?	PEP	P
TRANSPORTATION AND TRAFFIC			
Continuing Best Practice TRA-1-a: UC Berkeley will continue in partnership with the City of Berkeley to develop a City program to: (a) maintain the Southside area between College, Dana, Dwight and Bancroft in a clean and safe condition; and (b) provide needed public improvements to the area (e.g. traffic improvements, lighting, bicycle facilities, pedestrian amenities and landscaping).	Has UC Berkeley continued to partner with CoB to develop a City program to: (a) maintain the Southside in a clean and safe condition; and (b) provide needed public improvements to the Southside?	PEP	O

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
TRANSPORTATION AND TRAFFIC			
Continuing Best Practice TRA-1-b: UC Berkeley will continue to do strategic bicycle access planning. Issues addressed include bicycle access, circulation and amenities with the goal of increasing bicycle commuting and safety. Planning considers issues such as bicycle access to the campus from adjacent streets and public transit; bicycle, vehicle, and pedestrian interaction; bicycle parking; bicycle safety; incentive programs; education and enforcement; campus bicycle routes; and amenities such as showers. The scoping and budgeting of individual projects will include consideration of improvements to bicycle access.	a) Has UC Berkeley continued strategic bicycle access planning, including bicycle access, circulation and amenities to increase bicycle commuting and safety?	P&T	O
	b) Have bicycle access improvements been considered in the scoping and budgeting of the project?	PEP, PM	P
Continuing Best Practice TRA-2: The following housing and transportation policies will be continued: ▪ Except for disabled students, students living in UC Berkeley housing would only be eligible for a daytime student fee lot permit or residence hall parking based upon demonstrated need, which could include medical, employment, academic and other criteria. ▪ An educational and informational program for students on commute alternatives would be expanded to include all new housing sites.	a) Do students living in UCB housing continue to only be eligible for a daytime student fee lot permit or residence hall parking based upon demonstrated need (medical, employment, academic and other criteria)? b) Has an educational and informational program for students on commute alternatives been expanded to include all new housing sites?	RSSP	O
LRDP Mitigation Measure TRA-2: The planned parking supply for University housing projects under the 2020 LRDP would comply with the relevant municipal zoning ordinance as of July 2003. Where the planned parking supply included in a University housing project would make it ineligible for approval under the subject ordinance, UC Berkeley would conduct further review of parking demand and supply in accordance with CEQA.	a) For a proposed housing project, does the planned parking supply comply with the relevant municipal zoning ordinance as of July 2003? b) If the answer to (a) is "no", has UC Berkeley conducted further review of parking demand and supply in accordance with CEQA?	PEP	P
Continuing Best Practice TRA-3-a: Early in construction period planning UC Berkeley shall meet with the contractor for each construction project to describe and establish best practices for reducing construction-period impacts on circulation and parking in the vicinity of the project site.	Early in construction period planning, did the project meet with the contractor to describe and establish best practices for reducing construction-period impacts on circulation and parking in the vicinity of the project site?	PM	W *and* C

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
TRANSPORTATION AND TRAFFIC			
Continuing Best Practice TRA-3-b: For each construction project, UC Berkeley will require the prime contractor to prepare a Construction Traffic Management Plan which will include the following elements: ▪ Proposed truck routes to be used, consistent with the City truck route map. ▪ Construction hours, including limits on the number of truck trips during the a.m. and p.m. peak traffic periods (7:00 – 9:00 a.m. and 4:00 – 6:00 p.m.), if conditions demonstrate the need. ▪ Proposed employee parking plan (number of spaces and planned locations). ▪ Proposed construction equipment and materials staging areas, demonstrating minimal conflicts with circulation patterns. ▪ Expected traffic detours needed, planned duration of each, and traffic control plans for each.	a) Has the project required the prime contractor to prepare a Construction Traffic Management Plan (CTMP)? b) Has such a plan been prepared? c) Does the CTMP include: truck routes consistent with City route map; construction hours w/# truck trips limited 7:00 – 9:00 a.m., 4:00 – 6:00 p.m.; crew parking plan (# of spaces, locations); staging areas minimizing conflicts; detours, including duration and traffic control plan?	PM	W
Continuing Best Practice TRA-3-c: UC Berkeley will manage project schedules to minimize the overlap of excavation or other heavy truck activity periods that have the potential to combine impacts on traffic loads and street system capacity, to the extent feasible.	To the extent feasible, has the project schedule minimized overlap of excavation or other heavy truck activity that could cumulatively impact traffic loads and street system capacity?	PM	W *and* C
Continuing Best Practice TRA-3-d: UC Berkeley will reimburse the City of Berkeley for its fair share of costs associated with damage to City streets from University construction activities, provided that the City adopts a policy for such reimbursements applicable to all development projects within Berkeley.	a) Has CoB adopted a policy for fair share street damage reimbursements applicable to all development projects within Berkeley? b) If the answer to (a) is "yes", has UC Berkeley reimbursed the City of Berkeley for its fair share of costs associated with damage to City streets from University construction activities?	PEP	O
Continuing Best Practice TRA-5: The University shall continue to work to coordinate local transit services as new academic buildings, parking facilities, and campus housing are completed, in order to accommodate changing demand locations or added demand.	Has the University continued to coordinate local transit services, in order to accommodate changing demand locations or added demand?	P&T	O

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
TRANSPORTATION AND TRAFFIC			
LRDP Mitigation Measure TRA-6-a: The University will work with the City of Berkeley to redesign and, on a fair share basis, implement changes to either the westbound or northbound approach of the Cedar Street/Oxford Street intersection to provide a left-turn lane and a through lane. The University will contribute fair share funding for a periodic (annual or biennial) traffic count to allow the City to determine when an intersection redesign is needed. With the implementation of this mitigation measure, the intersection will operate at LOS B during the AM peak hour and LOS D during the PM peak hour.	a) Has the University contributed fair share funding for a periodic (annual or biennial) traffic count to allow CoB to determine when an intersection redesign is needed at Cedar Street/Oxford Street? b) When indicated by a), has UC Berkeley cooperated with CoB to redesign and, on a fair share basis, change either the westbound or northbound approach of the Cedar/Oxford intersection to provide a left-turn lane and a through lane?	PEP	O
LRDP Mitigation Measure TRA-6-b: The University will work with the City of Berkeley to design and, on a fair share basis, install a signal at the Durant Avenue/Piedmont Avenue intersection, when a signal warrant analysis shows the signal is needed. The University will contribute fair share funding for a periodic (annual or biennial) signal warrant check at this and other impact intersections, to allow the City to determine when a signal is warranted. With the implementation of this mitigation measure, the intersection will operate at LOS B during both AM and PM peak hours.	a) Has the University contributed fair share funding for a periodic (annual or biennial) signal warrant check at Durant Avenue/Piedmont Avenue to allow CoB to determine when a signal is warranted? b) When indicated by a), has UC Berkeley cooperated with CoB to design and, on a fair share basis, install a signal northbound at the Durant Avenue /Piedmont Avenue intersection?	PEP	O
LRDP Mitigation Measure TRA-6-c: The University will work with the City of Berkeley to design and, on a fair share basis, install a signal at the Derby Street/ Warring Street intersection, and provide an exclusive right-turn lane and an exclusive through lane on the westbound approach. The University will contribute fair share funding for a periodic (annual or biennial) signal warrant check at this and other impact intersections, to allow the City to determine when a signal and the associated capacity improvements are warranted. With the implementation of this mitigation measure, the intersection will operate at LOS A during the AM peak hour and LOS C during the PM peak hours.	a) Has the University contributed fair share funding for a periodic (annual or biennial) signal warrant check at Derby Street/Warring Street to allow CoB to determine when a signal and the associated capacity improvements are warranted? b) When indicated by a), has UC Berkeley cooperated with CoB to design and, on a fair share basis, install a signal at the Derby Street/ Warring Street intersection, and provide an exclusive right-turn lane and an exclusive through lane on the westbound approach?	PEP	O

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
TRANSPORTATION AND TRAFFIC			
LRDP Mitigation Measure TRA-6-d: The University will work with the City of Berkeley to design and, on a fair share basis, install a signal at the Addison Street/ Oxford Street intersection, and provide the necessary provisions for coordination with adjacent signals along Oxford Street. The University will contribute fair share funding for a periodic (annual or biennial) signal warrant check at this and other impact intersections, to allow the City to determine when a signal and the associated coordination improvements are warranted. With the implementation of this mitigation measure, the intersection will operate at LOS A during both AM and PM peak hours.	a) Has the University contributed fair share funding for a periodic (annual or biennial) signal warrant check at Addison Street/Oxford Street to allow CoB to determine when a signal and the associated coordination improvements are warranted? b) When indicated by a), has UC Berkeley cooperated with CoB to design and, on a fair share basis, install a signal at the Addison Street/ Oxford Street intersection, and provide the necessary provisions for coordination with adjacent signals along Oxford Street?	PEP	O
LRDP Mitigation Measure TRA-6-e: The University will work with the City of Berkeley to design and, on a fair share basis, install a signal at Allston Way/Oxford Street intersection, and provide the necessary provisions for coordination with adjacent signals along Oxford Street. The University will contribute fair share funding for a periodic (annual or biennial) signal warrant check at this and other impacted intersections, to allow the City to determine when a signal and the associated coordination improvements are warranted. With the implementation of this mitigation measure, the intersection will operate at LOS A during both AM and PM peak hours.	a) Has the University contributed fair share funding for a periodic (annual or biennial) signal warrant check at Allston Way/Oxford Street to allow CoB to determine when a signal and the associated coordination improvements are warranted? b) When indicated by a), has UC Berkeley cooperated with CoB to design and, on a fair share basis, install a signal at the Allston Way/Oxford Street intersection, and provide the necessary provisions for coordination with adjacent signals along Oxford Street?	PEP	O

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
TRANSPORTATION AND TRAFFIC			
LRDP Mitigation Measure TRA-6-f: The University will work with the City of Berkeley to design and, on a fair share basis, install a signal at the Kittredge Street/ Oxford Street intersection, and provide the necessary provisions for coordination with adjacent signals along Oxford Street. The University will contribute fair share funding for a periodic (annual or biennial) signal warrant check at this and other impacted intersections, to allow the City to determine when a signal and the associated coordination improvements are warranted. With the implementation of this mitigation measure, the intersection will operate at LOS A during both AM and PM peak hours.	a) Has the University contributed fair share funding for a periodic (annual or biennial) signal warrant check at Kittredge Street/Oxford Street to allow CoB to determine when a signal and the associated coordination improvements are warranted? b) When indicated by a), has UC Berkeley cooperated with CoB to design and, on a fair share basis, install a signal at the Kittredge Street/ Oxford Street intersection, and provide the necessary provisions for coordination with adjacent signals along Oxford Street?	PEP	O
LRDP Mitigation Measure TRA-6-g: The University will work with the City of Berkeley to design and, on a fair share basis, install a signal at the Bancroft Way/ Ellsworth Street intersection, and provide the necessary provisions for coordination with adjacent signals along Bancroft Way. The University will contribute fair share funding for a periodic (annual or biennial) signal warrant check at this and other impact intersections, to allow the City to determine when a signal and the associated coordination improvements are warranted. With the implementation of this mitigation measure, the intersection will operate at LOS B during both AM and PM peak hours.	a) Has the University contributed fair share funding for a periodic (annual or biennial) signal warrant check at Bancroft Way/Ellsworth Street to allow CoB to determine when a signal and the associated coordination improvements are warranted? b) When indicated by a), has UC Berkeley cooperated with CoB to design and, on a fair share basis, install a signal at the Bancroft Way/Ellsworth Street intersection, and provide the necessary provisions for coordination with adjacent signals along Bancroft Way?	PEP	O

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
TRANSPORTATION AND TRAFFIC			
LRDP Mitigation Measure TRA-7: The University will work with the City of Berkeley to design and, on a fair share basis, install a signal at the Bancroft Way/ Piedmont Avenue intersection, and provide an exclusive left-turn lane and an exclusive through lane on the northbound approach. The University will contribute fair share funding for a periodic (annual or biennial) signal warrant check at this and other impact intersections, to allow the City to determine when a signal and the associated capacity improvements are warranted. With the implementation of this mitigation measure, the intersection would operate at LOS B during both AM and PM peak hours.	a) Has the University contributed fair share funding for a periodic (annual or biennial) signal warrant check at Bancroft Way/ Piedmont Avenue to allow CoB to determine when a signal and the associated capacity improvements are warranted? b) When indicated by a), has UC Berkeley cooperated with CoB to design and, on a fair share basis, install a signal at the Bancroft Way/ Piedmont Avenue intersection, and provide an exclusive left-turn lane and an exclusive through lane on the northbound approach?	PEP	O
LRDP Mitigation Measure TRA-9: Prior to approving any development outside the City Environs, the University will conduct a traffic study to assess the localized traffic impacts of this development. Mitigations required to ensure that the housing project does not cause LOS deterioration exceeding the stated impact levels would be implemented, if necessary.	a) For a proposal in the City Environs, has the project conducted a traffic study to assess its localized traffic impacts? b) Have mitigations been implemented, if necessary, to ensure that this project does not cause LOS deterioration exceeding the stated impact levels?	PM	P *and* O
LRDP Mitigation Measure TRA-11: The University will implement the following measures to limit the shift to driving by existing and potential future non-auto commuters: ▪ Review the number of sold parking permits in relation to the number of campus parking spaces and demographic trends on a yearly basis, and establish limits on the total number of parking permits sold proportionate to the number of spaces, with the objective of reducing the ratio of permits to spaces over time as the number of spaces grows, thus ensuring that new supply improves the existing space-to-permit ratio without encouraging mode change to single occupant vehicles. ▪ As new parking becomes operational, assign a portion of the new or existing	a) Has the University: annually reviewed # of sold permits relative to # of parking spaces and demographic trends; and, limited total # of sold permits relative to #of parking spaces? b) As new parking becomes operational, has the University assigned a portion of the total parking supply to short-term or visitor parking? c) As new parking inventory is added to the system, has the University expanded the quantity of parking that is available only after 10:00 a.m.?	P&T	O

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
TRANSPORTATION AND TRAFFIC			
parking supply to short-term or visitor parking, thus targeting parkers who choose on-street parking now, and also effectively reserving part of the added supply for non-commuters. ▪ Expand the quantity of parking that is available only after 10:00 a.m., to avoid affecting the travel mode use patterns of the peak hour commuting population, as new parking inventory is added to the system. ▪ Review and consider reductions in attended parking as new parking inventory is added to the system and other impacts do not reduce parking supply.	d) As new parking inventory is added to the system — and if other impacts do not reduce parking supply — has the University reviewed and considered reductions in attended parking?		
Continuing Best Practice TRA-11: The University surveys the transportation practices of both students and employees at periodic intervals. In order to ensure the parking objective of the 2020 LRDP takes into account future changes in drive-alone rates, transit service and parking demand, the University will conduct such surveys at least once every 3 years; will make the survey results available to the public; and will review and, if appropriate, reduce the 2020 LRDP parking objective in light of those results.	a) Has UC Berkeley conducted a survey of transportation practices of students and employees within the last 3 years, and made the results available to the public? b) Has UC Berkeley reviewed and, if appropriate, reduced the 2020 LRDP parking objective?	PEP, P&T	O
LRDP Mitigation Measure TRA-12: The University shall prepare a strategic pedestrian improvement plan that outlines the expected locations and types of pedestrian improvements that may be desirable to accommodate 2020 LRDP growth. The plan shall be flexible to respond to changing conditions as the LRDP builds out, and shall contain optional strategies and improvements that can be applied to specific problems that arise as the LRDP builds out. The University shall develop the Plan in consultation with the City of Berkeley, and work with the City to implement plan elements as needed during the life of the 2020 LRDP on a fair share basis.	a) Has the University prepared a strategic pedestrian improvement plan that outlines the expected locations and types of pedestrian improvements that may be desirable to accommodate 2020 LRDP growth? b) Is the plan flexible, and does it contain optional strategies and improvements that can be applied to specific problems that arise as the LRDP builds out? c) Was the plan developed -- and implemented as needed during the life of the 2020 LRDP on a fair share basis -- in consultation with CoB?	PEP	O

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
UTILITIES AND SERVICE SYSTEMS			
Continuing Best Practice USS-1.1: For campus development that increases water demand, UC Berkeley would continue to evaluate the size of existing distribution lines as well as pressure of the specific feed affected by development on a project-by-project basis, and necessary improvements would be incorporated into the scope of work for each project to maintain current service and performance levels. The design of the water distribution system, including fire flow, for new buildings would be coordinated among UC Berkeley staff, EBMUD, and the Berkeley Fire Department.	a) Has UC Berkeley continued to evaluate size of existing distribution lines as well as pressure of specific feeds affected by development on a project-by-project basis? b) Has the design of the water distribution system, including fire flow, been coordinated among UC Berkeley staff, EBMUD, and the Berkeley Fire Department?	PP-CS, PM	P *and* W
	Have necessary improvements been incorporated into the scope of work for each project to maintain current service and performance levels?	PM	P *and* W
Continuing Best Practice USS-2.1-a: UC Berkeley will promote and expand the central energy management system (EMS), to tie building water meters into the system for flow monitoring.	Has UC Berkeley promoted and expanded the central energy management system (EMS), to tie building water meters into the system for flow monitoring?	PP-CS	O
Continuing Best Practice USS-2.1-b: UC Berkeley will analyze water and sewer systems on a project-by-project basis to determine specific capacity considerations in the planning of any project proposed under the 2020 LRDP.	Has the project analyzed water and sewer systems to determine specific capacity considerations?	PEP, PP-CS, PM	P *and* W
Continuing Best Practice USS-2.1-c: UC Berkeley will continue and expand programs retrofitting plumbing in high-occupancy buildings, and seek funding for these programs from EBMUD or other outside agencies as appropriate.	Has UC Berkeley continued and expanded programs retrofitting plumbing in high-occupancy buildings, and sought funding for these programs from EBMUD or other outside agencies as appropriate?	PP-CS	O
Continuing Best Practice USS-2.1-d: UC Berkeley will continue to incorporate specific water conservation measures into project design to reduce water consumption and wastewater generation. This could include the use of special air-flow aerators, water-saving shower heads, flush cycle reducers, low-volume toilets, weather based or evapotranspiration irrigation controllers, drip irrigation systems, the use of drought resistant plantings in landscaped areas, and collaboration with EBMUD to explore suitable uses of recycled water.	Has the project incorporated specific water conservation measures into project design?	PM	P

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
UTILITIES AND SERVICE SYSTEMS			
Continuing Best Practice USS-2.1-e: The current agreement under which UC Berkeley makes payments to the City of Berkeley to help fund sewer improvements terminates at the conclusion of academic year 2005-2006 or upon approval of the 2020 LRDP. Any future payments to service providers to help fund wastewater treatment or collection facilities would conform to Section 54999 of the California Government Code, including but not limited to the following provisions: ▪ Fees would be limited to the cost of capital construction or expansion. ▪ Fees would be imposed only after an agreement has been negotiated by the University and the service provider. ▪ The service provider must demonstrate the fee is nondiscriminatory: i.e. the fee must not exceed an amount determined on the basis of the same objective criteria and methodology applied to comparable nonpublic users, and is not in excess of the proportionate share of the cost of the facilities of benefit to the entity property being charged, based upon the proportionate share of use of those facilities. ▪ The service provider must demonstrate the amount of the fee does not exceed the amount necessary to provide capital facilities for which the fee is charged.	Have payments to service providers to help fund wastewater treatment or collection facilities conformed to Section 54999 of the California Government Code?	PEP, BAS	O
Continuing Best Practice USS-3.1: UC Berkeley shall continue to manage runoff into storm drain systems such that the aggregate effect of projects implementing the 2020 LRDP is no net increase in runoff over existing conditions.	Has the project been designed to ensure that it will not contribute to net increase in runoff over existing conditions?	PM, EH&S, PP-CS	P
	Has UC Berkeley continued to manage runoff into storm drain systems such that the aggregate effect of projects implementing the 2020 LRDP is no net increase in runoff over existing conditions?	EH&S, PP-CS	O
LRDP Mitigation Measure USS-3.2: In addition to Best Practice USS-3.1, projects proposed with potential to alter drainage patterns in the Hill Campus would be accompanied by a hydrologic modification analysis, and would incorporate a plan to prevent increases of flow from the project site, preventing downstream flooding and substantial siltation and erosion.	a) For a project with potential to alter drainage in the Hill Campus, has the project performed a hydrologic modification analysis? b) Has the project incorporated a plan to prevent increases of flow from the project site?	OEP, PM	P

TABLE 10-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
UTILITIES AND SERVICE SYSTEMS			
Continuing Best Practice USS-5.1: UC Berkeley would continue to implement a solid waste reduction and recycling program designed to reduce the total quantity of campus solid waste that is disposed of in landfills during implementation of the 2020 LRDP.	Has UC Berkeley continued to implement a solid waste reduction and recycling program to reduce the total quantity of campus solid waste that is disposed of in landfills during implementation of the 2020 LRDP?	PP-CS	O
Continuing Best Practice USS-5.2: In accordance with the Regents-adopted green building policy and the policies of the 2020 LRDP, the University would develop a method to quantify solid waste diversion. Contractors working for the University would be required under their contracts to report their solid waste diversion according to the University's waste management reporting requirements.	Has the University developed a method to quantify solid waste diversion?	PP-CS	O
	Does the project contract require the contractors working for the University to report their solid waste diversion according to the University's waste management reporting requirements?	PM	W *and* C
LRDP Mitigation Measure USS-5.2: Contractors on future UC Berkeley projects implemented under the 2020 LRDP will be required to recycle or salvage at least 50% of construction, demolition, or land clearing waste. Calculations may be done by weight or volume, but must be consistent throughout.	Has at least 50% of construction, demolition or land clearing waste associated with the project been recycled or salvaged?	PM	W *and* C

Abbreviation Key:

BAS UCB Business & Administrative Services **CFM** Campus Fire Marshal **CLA** Campus Landscape Architect **CoB** City of Berkeley **EH&S** UCB Environment Health and Safety **RSSP** UCB Residential & Student Services Program **P&T** UCB Parking & Transportation **PEP** UCB Physical & Environmental Planning **PM** UCB Project Management **PP-CS** UCB Physical Plant—Campus Services **UCPD** UCB Police Department **OEP** UCB Office of Emergency Preparedness