

5.0 MITIGATION MONITORING AND REPORTING PROGRAM

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

The MMRP for the UC Santa Cruz Student Housing West project is presented in **Table 5.0-1, UC Santa Cruz Student Housing West Project Mitigation and Monitoring Program**. **Table 5.0-1** includes the full text of project-specific mitigation measures identified in the Final EIR. The MMRP describes implementation and monitoring procedures, responsibilities, and timing for each mitigation measure identified in the EIR, including:

Mitigation Measure: Provides the mitigation name, or ID, and the full text of the mitigation measure as provided in the Final EIR.

Implementation Procedure: Summarizes the steps to be taken to implement the measure.

Responsible Party: Designates entity responsible for implementation of the mitigation measure.

Reporting Mechanism: Specifies procedures for documenting and reporting mitigation implementation.

UC Santa Cruz may modify the means by which a mitigation measure will be implemented, as long as the alternative means ensure compliance during project implementation. The responsibilities of mitigation implementation, monitoring and reporting extend to several UC Santa Cruz departments and offices and may be contractually delegated to the project development team. The manager or department lead of the identified unit or department will be directly responsible for ensuring the responsible party complies with the mitigation. UC Santa Cruz Physical and Environmental Planning is responsible for the overall administration of the program and for assisting relevant departments and project managers in their oversight and reporting responsibilities. This unit is also responsible for ensuring the relevant parties understand their charge and complete the required procedures accurately and on schedule.

**Table 5.0-1
UC Santa Cruz Student Housing West Project
Mitigation Monitoring and Reporting Program**

Project-Specific Mitigation Measure	Mitigation Procedures	Mitigation Timing	Mitigation Responsibility	Monitoring and Reporting Procedure
Aesthetics				
SHW Mitigation AES-4: Implement SHW Mitigation BIO-12	Refer to SHW Mitigation BIO-12 .	Refer to SHW Mitigation BIO-12 .	Refer to SHW Mitigation BIO-12 .	Refer to SHW Mitigation BIO-12 .
Air Quality				
<p>SHW Mitigation AIR-1A: The P3 developer shall submit an equipment and phasing plan to the Campus for review and approval that will demonstrate the following to reduce exhaust emissions during construction:</p> <ul style="list-style-type: none"> • All diesel-powered off-road equipment larger than 25 horsepower and operating on the project construction sites for more than two days in a row shall meet, at a minimum, U.S. EPA standards for Tier 3 engines or equivalent. • All diesel-powered off-road equipment larger than 25 horsepower and operating on the project construction sites for more than two days in a row shall be equipped with diesel particulate matter filters that meet CARB-certified Level 3 Diesel Particulate Filters or alternatively-fueled equipment (i.e., non-diesel) would meet this requirement. • Signal boards shall be electrically powered. • Provide electrical line power so that diesel-fueled generator use shall be limited to 100 hours total at the Hagar site. • Minimize the use of diesel-fueled generators at the Heller site. • Ensure intensive construction activities (grading and building erection) at the Hagar and Heller sites do not overlap (note that current schedule indicates these would occur at separate times). 	Project Developer will submit an equipment and phasing plan. Campus will review and approve plan.	Prior to, and throughout, construction.	Physical Planning, Development & Operations (PPDO)/ Project Developer	<p>Equipment and Phasing Plan will be reviewed by PPDO under the contract submittal process.</p> <p>Project Developer will document compliance in project mitigation monitoring report.</p>

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<p>SHW Mitigation AIR-1B: The project shall use low volatile organic compound or VOC (i.e., ROG) coatings, that are below current MBARD requirements (i.e., Rule 426: Architectural Coatings), for at least 50 percent of all residential interior paints. This includes all architectural coatings applied during construction. At least 50 percent of coatings applied to interior portions of the project must meet a "super-compliant" VOC standard of less than 10 grams of VOC per liter of paint.</p>	<p>Project Developer will include this requirement in the contract specifications, including a requirement for a contractor submittal.</p>	<p>Throughout project construction.</p>	<p>PPDO/ Project Developer</p>	<p>Implementation will be monitored through the contract submittal process.</p>
<p>Air Quality (continued)</p>				
<p>SHW Mitigation AIR-3: Implement SHW Mitigation AIR-1A.</p>	<p>Implement SHW Mitigation AIR-1A.</p>	<p>Refer to SHW Mitigation AIR-1A.</p>	<p>Refer to SHW Mitigation AIR-1A.</p>	<p>Refer to SHW Mitigation AIR-1A.</p>
<p>Biological Resources</p>				
<p>SHW Mitigation BIO-1A: California oat grass grassland</p> <p>The restoration to compensate for the loss of the California oat grass grassland shall be performed using native species from local seed sources. Methods of the restoration shall involve collection/application of seeds, collection/planting of propagules/plugs, and/or salvaging of top soils under the supervision of a qualified restoration ecologist. The management and monitoring plan shall be reviewed and approved by the Campus and a third-party qualified restoration ecologist that is not implementing the project. The management and monitoring plan will include (a) performance standards to ensure the efficacy of the mitigation; (b) timing requirements; (c) requirements for review and approval of final plans by the Campus as appropriate; (d) specific benchmarks and other criteria that must be met; (e) specific implementing actions; (f) monitoring and maintenance procedures and requirements; (g) qualification requirements for biologists; and</p>	<p>Project Developer will retain restoration biologist to prepare and implement plan.</p> <p>Campus and third-party restoration ecologist will review and approve management and monitoring plan.</p>	<p>Develop and begin implementation within one year of commencement of project construction</p>	<p>PPDO/ Project Developer</p>	<p>Campus/Project Developer will file an initial report upon completion of the restoration project, and annual reports for at least 5 years documenting whether the success criteria for the restoration project have been achieved.</p>

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<p>(h) other requirements needed to ensure the identified impacts are mitigated to a less than significant level. Success criteria shall also include monitoring of noxious weeds.</p>				
<p>SHW Mitigation BIO-1B: Purple needlegrass grassland</p> <p>For any unavoidable permanent losses of purple needlegrass, the Campus shall mitigate by (1) permanently protecting existing purple needlegrass grassland within the campus at a 3:1 ratio to the acreage removed, or (2) by restoring purple needlegrass grassland at a ratio of at least 1:1.</p> <p>In the event that restoration is the chosen mitigation, the Campus will identify one or more potential sites for restoration on the campus and will direct the preparation of a management and monitoring plan, including quantitative success criteria, for the restoration site(s). The plan will specify that restoration shall be performed with purple needlegrass from local seed sources. Methods of the restoration shall involve collection/application of seeds, collection/planting of propagules/plugs, and/or salvaging of top soils under the supervision of a qualified restoration ecologist. Success criteria for the restoration shall include providing equivalent or greater overall (rather than species specific) cover of purple needlegrass as is found in the purple needlegrass grassland that will be lost to development. Success criteria shall also include monitoring of noxious weeds. The monitoring period for the restoration of purple needlegrass grassland shall be a minimum of 5 years or until success criteria are met. This management and monitoring plan shall be reviewed and approved by the Campus and a qualified restoration ecologist who is not the consultant implementing the project. The management and monitoring plan will include (a) performance standards to ensure the efficacy</p>	<p>In the case of permanent protection, Campus will file a conservation easement permanently protecting 51.3 acres of existing purple needlegrass on or off-campus.</p> <p>In the case of restoration, Project Developer will retain restoration biologist to prepare and implement plan.</p> <p>Campus and third-party restoration ecologist will review and approve management and monitoring plan. The plan will ensure that impacted acreage will be compensated at a ratio of at least 1:1.</p>	<p>Commence conservation easement process within one year of commencement of project construction; complete within three years.</p> <p>Develop and begin implementation of restoration plan within one year of commencement of project construction</p>	<p>PPDO/ Project Developer</p>	<p>If the selected mitigation is preservation, documentation of conservation easement will be placed in file.</p> <p>If the selected mitigation is restoration, Campus/Project Developer will file an initial report upon completion of the restoration project, and annual reports for at least 5 years documenting whether the success criteria for the restoration project have been achieved.</p>

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<p>of the mitigation; (b) timing requirements; (c) requirements for review and approval of final plans by the Campus as appropriate; (d) specific benchmarks and other criteria that must be met; (e) specific implementing actions; (f) monitoring and maintenance procedures and requirements; (g) qualification requirements for biologists; and (h) other requirements needed to ensure the identified impacts are mitigated to a less than significant level. Management of the site shall continue for at least 5 years to protect the restored areas from reverting to annual grassland. If purple needlegrass restoration does not meet the success criteria after 5 years, restoration shall be remedied (e.g., replanting) or restoration will be attempted on a new, more suitable site. This same plan will also apply to restored purple needlegrass grassland within the temporarily impacted areas.</p>				
<p>SHW Mitigation BIO-1C: Creeping Rye Grass Turfs</p> <p>Where creeping rye grass turfs are temporarily impacted, the temporarily affected areas will be restored by seeding and/or planting plugs of creeping rye grass. The restoration shall be performed using native species from local seed sources.</p> <p>For any unavoidable permanent losses for up to 0.2 acre of creeping rye grass turfs, the Campus shall mitigate by (1) permanently protecting an equivalent acreage of existing creeping rye grass turfs within the campus at a 3:1 ratio to the acreage removed or (2) by restoring creeping rye grass turfs at a ratio of at least 1:1.</p> <p>In the event that restoration is the chosen mitigation for the permanently impacted creeping rye grass turfs, the Campus will identify one or more potential sites for restoration on the campus and will direct the</p>	<p>In the case of permanent protection (for permanent impacts), Campus will file a conservation easement permanently protecting 0.6 acre of existing creeping rye grass turfs on or off-campus.</p> <p>In the case of restoration (for temporary or permanent impacts), the Campus will prepare a management and monitoring plan to ensure the success of the plantings. The plan will ensure that impacted acreage will be compensated at a ratio of at least 1:1.</p>	<p>Commence conservation easement process within one year of commencement of project construction; complete within three years.</p> <p>Develop and begin implementation of restoration plan within one year of commencement of project construction.</p>	<p>PPDO/ Project Developer</p>	<p>If the selected mitigation is preservation, documentation of conservation easement will be placed in file.</p> <p>If the selected mitigation is restoration, Campus/Project Developer will file an initial report upon completion of the restoration project, and annual reports for at least 5 years documenting whether the success criteria for the restoration project have been achieved.</p>

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<p>preparation of a management and monitoring plan, including quantitative success criteria, for the restoration site(s). The plan will specify that restoration shall be performed with creeping rye grass from local seed sources. Methods of the restoration shall involve collection/application of seeds, collection/planting of propagules/plugs, and/or salvaging of top soils under the supervision of a qualified restoration ecologist. Success criteria for the restoration shall include providing equivalent or greater overall (rather than species specific) cover of creeping rye grass as is found in the creeping rye grass turfs that will be impacted. Success criteria shall also include monitoring of noxious weeds. This management and monitoring plan shall be reviewed and approved by the Campus and a qualified restoration ecologist who is not the consultant implementing the project. The monitoring period for the restoration of creeping rye grass turfs shall be a minimum of 5 years or until success criteria are met. Management of the site shall continue for at least 5 years to protect the restored areas from reverting to annual grassland. If creeping rye grass restoration does not meet the success criteria after 5 years, restoration shall be remedied (e.g., replanting) or restoration will be attempted on a new, more suitable site. This same plan will also apply to restored creeping rye grass turfs within the temporarily impacted areas.</p>				
<p>SHW Mitigation BIO-1D: California Bay Forest</p> <p><i>Mitigation for Loss of Understory</i></p> <p>Where California bay forest understory vegetation is temporarily impacted, the temporarily affected areas will be restored by</p>	<p>In the case of permanent protection (for permanent impacts), Campus will file a conservation easement permanently protecting existing California bay forest on or off-campus at a 3:1 ratio.</p>	<p>Commence conservation easement process within one year of commencement of project construction; complete within three years.</p>	<p>PPDO/ Project Developer</p>	<p>If the selected mitigation is preservation, documentation of conservation easement will be placed in file.</p>

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<p>seeding and/or planting native California bay forest understory plants, such as California blackberry, coyote brush, and yerba buena.</p> <p>For any unavoidable permanent losses, the Campus shall mitigate (1) by permanently protecting an equivalent acreage of existing California bay forest within the campus at a 3:1 ratio to the acreage impacted, or (2) by restoring California bay forest understory vegetation at a ratio of at least 1:1.</p> <p>In the event that restoration is the chosen mitigation, the Campus will identify one or more potential sites for restoration on the campus and will direct the preparation of a management and monitoring plan, including quantitative success criteria, for the restoration site(s). The plan will specify that restoration shall be performed with California bay forest understory vegetation from local plant sources. Methods of the restoration shall involve collection/application of seeds and/or collection/planting of propagules/plugs under the supervision of a qualified restoration ecologist. Success criteria for the restoration shall include providing plant survivorship (or established) and providing equivalent or greater overall (rather than species specific) cover of California bay forest understory vegetation as is found in the understory vegetation that will be impacted due to the storm drain improvements. Success criteria shall also include monitoring of noxious weeds. This management and monitoring plan shall be reviewed and approved by the Campus and a qualified restoration ecologist who is not the consultant implementing the project. The monitoring period for the restoration of California bay forest understory vegetation shall be a minimum of 5 years or until success criteria are met. Management of the site shall continue for at least 5 years. If restoration does not meet the success criteria after 5 years, restoration shall be</p>	<p>In the case of restoration (for temporary or permanent impacts), the Campus will prepare a management and monitoring plan to ensure the success of the plantings. The plan will ensure that impacted acreage will be compensated at a ratio of at least 1:1.</p>	<p>Develop and begin implementation of restoration plan within one year of commencement of project construction</p>		<p>If the selected mitigation is restoration, Campus/Project Developer will file an initial report upon completion of the restoration project, and annual reports for at least 5 years documenting whether the success criteria for the restoration project have been achieved.</p>

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<p>remedied (e.g., replanting) or restoration will be attempted on a new, more suitable site. This same plan will also apply to restored understory vegetation within the temporarily impacted areas.</p>				
<p>Mitigation for Impact to Tree Root Systems Tree Protection Zone fencing shall be installed under the supervision of a qualified arborist and maintained to prevent direct damage to trees. The fence shall be placed at a distance that is at or outside of the drip lines of trees or 8 feet from their trunk, whichever is greater. Heavy machinery shall not be allowed to operate or be stored within the dripline of avoided trees unless approved by a qualified arborist. Excavation work within the dripline of trees shall be conducted with light equipment or by hand whenever possible to avoid tearing of large diameter roots. Root pruning shall be performed with a sharp blade taking care not to tear root tissue. Construction materials or debris shall not be placed adjacent to or against the trunks of the trees. Disposal or depositing of oil, gasoline, chemicals or other harmful materials within the forest shall be prohibited. The certified arborist shall be present to monitor activities that may pose a potential threat to the trees.</p>	<p>Project drawings and contract documents will include tree protection fencing and other mitigation requirements.</p> <p>Project Developer will ensure that arborist is on site as required.</p>	<p>Before commencement of construction and for the duration of construction.</p>	<p>PPDO/Project Developer</p>	<p>Project Developer will document the arborist's review and inspection in project mitigation and monitoring report.</p>
<p>SHW Mitigation BIO-4: The Campus shall implement the following measures.</p> <ul style="list-style-type: none"> Require mandatory stewardship training for residents of the proposed Heller site and Hagar site housing (either online or in person) designed to bring awareness to sensitive environments and ways to reduce impacts to the cave <u>and other sensitive biological resources in proximity of the project sites</u>. The training could be provided by the CNR. Install additional interpretive signage about the cave species, <u>other sensitive plant and wildlife species</u>, and their habitats, Best Stewardship/Leave no Trace principles for lessening the impact on the environment, and the CNR lands and mission. 	<p>Campus housing staff will prepare stewardship trainings, with assistance of Campus Natural Reserve staff or other qualified biologists.</p> <p>Project Developer will install additional interpretive signage, in consultation with CNR and PPDO staff.</p>	<p>Throughout project operation.</p>	<p>Colleges and Student Housing/CNR/Project Developer/PPDO</p>	<p>The Campus will incorporate this mitigation measure into the Campus's annual mitigation monitoring program.</p>

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<ul style="list-style-type: none"> The CNR Manager will work with Campus Police to evaluate additional enforcement actions that may be implemented to address the unauthorized activities by campus and non-campus population at the cave. 	<p>CNR Manager will work with Campus Police regarding additional enforcement actions.</p>			
<p>SHW Mitigation BIO-5A: In addition to LRDP Mitigation BIO-9, the project shall implement the following avoidance measures at both project sites.</p> <ul style="list-style-type: none"> Prior to the commencement of construction activities, a qualified biologist shall be present a training session for all project personnel to provide an overview on the CRLF, applicable regulatory policies and provisions regarding their protection, and the avoidance and minimization measures to be followed to protect the species. All crew members shall be briefed on the reporting process in the event that an inadvertent injury should occur to a special-status species during construction. This training shall be incorporated into the daily job orientation and safety training provided to new craft coming onsite. The biologist may train one or more members of the contractor staff to serve as biological monitor with responsibility for daily inspection of the construction fencing as described below. The contractor, in coordination with the biologist, shall install exclusionary fencing around the entire project work site. The fencing shall be heavy-duty silt-fence or similar material (not open-meshed). It shall be buried a minimum of 6 inches so that CRLF cannot crawl under the fence and shall be inspected and maintained throughout the construction period, as specified below. Installation of the fencing shall be monitored by the biologist. Cover boards shall be placed 	<p>Campus/Project Developer will contract with qualified biologist (i.e., permitted by USFWS to handle CRLF) to provide training and will coordinate with contractor to schedule training session.</p> <p>Campus/Project Developer will consult with biologist and contractor to map appropriate fencing alignment and include fencing alignments and specifications, including biological monitoring requirements for installation and construction, in contract documents, following process specified in the mitigation.</p> <p>Biologist will monitor installation of the fencing and biologist or trained monitor will document integrity of fencing and any adjustments in daily monitoring log.</p> <p>Biologist will monitor daily during initial ground-disturbing activities and subsequently inspect the site on a weekly basis.</p> <p>PM will stop ground disturbing work and contact USFWS if biologist reports CRLF observation and will ensure work does not resume while CRLF are present.</p>	<p>Prior to and during construction.</p>	<p>PPDO/Project Developer</p>	<p>Project Biologist will provide daily reports for their activities; trained monitor will provide daily log. Project Developer will provide monthly reports to PPDO documenting compliance with each requirement.</p>

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<p>at approximately 100-foot intervals outside the fence to provide cover for wildlife that encounters the fence. Cover boards shall be monitored weekly by the biological monitor to ensure that they remain in place and are functional.</p> <ul style="list-style-type: none"> • A qualified wildlife biologist shall monitor all construction activities within CRLF upland or dispersal habitat daily during initial ground-disturbing activities, including grading, excavation, and vegetation removal. • The biologist shall perform spot checks of the site once a week. • If a CRLF is observed at any time during project activities, all work that may result in disturbance, injury, or mortality to the individual shall cease. The contractor shall notify the biologist, who shall in turn contact the Campus and USFWS. • Prior to the start of daily construction activities, the biologist or a biological monitor trained by the biologist shall inspect the perimeter fence to ensure that it is not ripped or has holes and that the base is still buried. The fence shall also be inspected to ensure that no CRLF are trapped in the fence. Any CRLF found along and outside the fence shall be closely monitored until the CRLF moves away from the construction area. 	<p>PM will consult with USFWS and implement additional requirements.</p>			
<p>SHW Mitigation BIO-5B: Temporary exclusion fencing shall be placed around the perimeter of the trenched utility corridor and storm water improvements. If possible, all trenched areas shall be completed and backfilled by the end of the work day. Any open trenches that cannot be backfilled shall be covered by the end of the work day. If installation of the utility lines cannot be completed within one day, the utility lines and storm drains shall be trenched in sections no longer than 300 feet in length to allow CRLF movement around the exclusion fences. Trenching shall not occur in amounts</p>	<p>Campus/Project Developer will follow procedures for installation and monitoring of fencing defined under SHW Mitigation BIO-5A.</p>	<p>Before and during construction in the utility corridor.</p>	<p>PPDO/Project Developer</p>	<p>Project Developer will include in daily/monthly reports required under SHW Mitigation BIO-5A.</p>

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greater than what can be completed during the following work day.				
SHW Mitigation BIO-6A: Implement SHW Mitigations BIO-5A and 5B.	Implement SHW Mitigations BIO-5A and 5B.	Refer to SHW Mitigations BIO-5A and 5B.	Refer to SHW Mitigations BIO-5A and 5B.	Refer to SHW Mitigations BIO-5A and 5B.
SHW Mitigation BIO-6B: Pre-construction surveys for American badger and potential badger burrows shall be conducted by a qualified biologist prior to construction activities. The survey shall be conducted within 14 days prior to the start of construction activities within 300 feet of the project site. If occupied burrows are found, the qualified biologist shall consult with CDFW to determine an appropriate buffer. If the occupied burrow is determined to be a natal badger den, then the burrow would have to remain protected until the juveniles are old enough to move from their den.	Campus/Project Developer will retain a qualified biologist to conduct a pre-construction survey for American badger and implement the biologist's instructions if badgers are found.	14 days before start of ground disturbing activities.	PPDO/Project Developer	Upon completion of ground disturbing activities, Project Developer will submit biologist's report to PPDO for project file.
SHW Mitigation BIO-11A: Implement SHW Mitigations BIO-5A and 5B.	Implement SHW Mitigations BIO-5A and 5B.	Refer to SHW Mitigations BIO-5A and 5B.	Refer to SHW Mitigations BIO-5A and 5B.	Refer to SHW Mitigations BIO-5A and 5B.
SHW Mitigation BIO-11B: The Campus shall review the final designs of the buildings at the Heller and Hagar sites to ensure that appropriate bird safety designs, <u>including the most current Bird-safe Design Standards</u> , have been effectively incorporated to reduce potential impacts to birds.	PPDO will review design development and construction drawings to ensure consistency with mitigation requirements.	Prior to commencement of construction.	PPDO	PPDO will include in documentation of plan review.
SHW Mitigation BIO-12: Outdoor lighting shall incorporate the following design guidelines: <ul style="list-style-type: none"> • New outer outdoor lighting shall be directed away from the habitat surrounding the sites and away from the proposed enhanced wildlife movement corridors. • Dimmer lights, the use of motion sensors, and late night off-periods shall be used to minimize lighting impacts to the adjacent sensitive habitat. • Generally following the International Dark-Sky Association guidelines for minimizing 	PPDO will review design development and construction drawings to ensure consistency with mitigation requirements.	Prior to commencement of construction.	PPDO	PPDO will include in documentation of plan review.

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<p>light pollution, outdoor lighting shall be provided in a manner that provides for nighttime safety, utility, security, and enjoyment while preventing light trespass into natural areas surrounding the sites.</p> <ul style="list-style-type: none"> • The design objective shall be to preclude any net increase in ambient lighting into adjacent sensitive habitats. • All external lighting shall include full-cutoff angles, which focus on target areas and do not extend to adjacent sensitive habitat. • Any pedestrian/bicycle pathway safety lighting shall be limited to low-bollard style lights that limit illumination to the trail surface. 				
Cultural Resources				
<p>SHW Mitigation CULT-1: Prior to ground disturbing activities in the study area, a qualified archaeologist shall re-record and photo document the isolated feature P-UCSC-012H before removing it from its current location.</p>	<p>Project Developer/Campus will contract with qualified archaeologist to manage the cultural resource as specified.</p> <p>Archaeologist will document and remove the isolated feature P-UCSC-012H.</p>	<p>Prior to commencement of ground disturbing activities.</p>	<p>PPDO/qualified archaeologist</p>	<p>PPDO will place report in project file.</p>
<p>SHW Mitigation CULT-2A: If any grading is proposed within 200 feet of the known margin of CA-SCR-142, the Campus will retain a qualified archaeologist to monitor the grading and to determine whether intact deposits are present. If archaeological materials are exposed by grading, the Campus shall implement LRDP Mitigation CULT-1G and LRDP Mitigation CULT-4B. If human remains are exposed and the County Sheriff-Coroner determines them to be of Native American origin, the Campus shall implement LRDP Mitigation CULT-4C.</p>	<p>Project Developer/Campus shall contract with qualified archaeologist to monitor grading as specified.</p> <p>Stop work in vicinity in the event of an archaeological discovery and contact the County Coroner in the event of discovery of suspected human bone. Contact California Native American Heritage Commission and conduct Native American consultation if Coroner determines the remains are Native American.</p>	<p>Prior to grading.</p> <p>In the event of an archaeological discovery.</p>	<p>PPDO</p>	<p>PPDO will include archaeologist's monitoring report/findings in project file.</p>

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SHW Mitigation CULT-2B: A Native American monitor of the Amah Mutsun Tribal Band will be provided an opportunity to monitor during ground disturbance within 200 feet of a known prehistoric deposit. In addition, if a previously unknown prehistoric deposit is uncovered during construction, a native American monitor of the Amah Mutsun Tribal Band will be provided the opportunity to monitor grading within 200 feet of the find.	Campus will reach out to the Native American monitor of the Amah Mutsun Tribal Band to offer the chance to monitor grading at the sites.	Prior to commencement of grading.	PPDO	PPDO will record any relevant correspondence in project file.
SHW Mitigation CULT-2C: Once the vegetation on the Hagar site is removed and before any grading for project construction is undertaken, another intensive pedestrian survey of the site will be conducted by a qualified archaeologist.	Campus will contract with a qualified archaeologist to conduct a pedestrian survey, as specified.	After vegetation removal but prior to grading.	PPDO	PPDO will record any relevant correspondence in project file.
Geology and Soils				
SHW Mitigation GEO-3A: At the time of the building foundation excavation in areas underlain by dolines, the excavation shall be examined by the project geologist and geotechnical engineer, prior to backfilling of the excavation. A geologic map portraying the distribution of rock and soil shall be prepared by the project geologist, particularly showing the geometry of the exposed marble bedrock. If previously unidentified dolines in excess of the design void span are mapped in the excavation, the project shall be redesigned to span those voids, or further subsurface work shall be performed to adequately characterize the hazard and attendant risks related to karst processes.	Project Developer/Campus will contract with a qualified geologist and a geotechnical engineer to survey excavation. The geologist will create a geologic map of the site's rocks, soils, and geometry.	At the time of the building foundation excavation, prior to backfilling.	PPDO	PPDO will include geologist's reports and maps in project file.
SHW Mitigation GEO-3B: Implement SHW Mitigation HYD-3B.	Refer to SHW Mitigation HYD-3B.	Refer to SHW Mitigation HYD-3B.	Refer to SHW Mitigation HYD-3B.	Refer to SHW Mitigation HYD-3B.
Hydrology and Water Quality				
SHW Mitigation HYD-3A: Treated storm water runoff will be sampled on site, and laboratory	Campus will sample and analyze treated storm water runoff and	During project occupancy; annually	PPDO/ Environmental Health and Safety/Project	PPDO will include all water sampling results in Campus's

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analyzed for total suspended solids, pH, oil & grease, and nitrates and compared with applicable storm water benchmarks threshold limits in general accordance with protocols outlined in the Industrial General Permit ¹ . In the event a limit is exceeded for any of the constituents, an assessment of existing best management practices will be conducted, and appropriate changes will be made to best management practices.	compare with stormwater benchmarks thresholds. BMPs will be reevaluated and altered in the event that a limit is exceeded.	during the first significant precipitation event of the season.	Developer	annual mitigation monitoring program.
SHW Mitigation HYD-3B: A minimum 60-foot buffer shall be established between infiltration areas and critical structures, existing or planned, such as buildings, roadways, and life/safety infrastructure.	PPDO will confirm during review of construction drawings that required buffer is incorporated into project design.	Prior to commencement of construction.	PPDO	PPDO will place map of buffer in project file.
SHW Mitigation HYD-3C: In the event that a sinkhole is formed or activated in Jordan Gulch by the discharge of storm water and recycled water from the Hagar site, a graded filter or another filtration system will be designed and constructed.	Project Developer/Campus will design and construct a filtration system, should a sinkhole appear near the discharge location in Jordan Gulch.	If a sinkhole is formed or activated.	Project Developer/PPDO	Project Developer will document troubleshooting efforts and filtration system design and submit to PPDO to place in project file. This mitigation measure requirement will be incorporated into the Campus's annual mitigation monitoring program.
Transportation and Traffic				
SHW Mitigation TRA-3: The University shall require the Project Developer to prepare and implement a Construction Traffic Management Plan that will include, but will not necessarily be limited to, the following elements: <ul style="list-style-type: none"> • Identify proposed truck routes to be used. • Specify construction hours, including limits on the number of truck trips during the AM 	Project Developer will develop and implement a Construction Traffic Management Plan, to include all bulleted items. PPDO will review and approve the plan.	Prior to commencement of construction and throughout construction.	PPDO/Project Developer	Construction Traffic Management Plan will be reviewed by PPDO under contract submittal process. Project Developer will document compliance in project mitigation monitoring program.

¹ While the Industrial General Permit is not applicable to the UC Santa Cruz campus, it establishes standard of care protocols for storm water analysis, qualifying storm events for sample collection, and provides benchmark threshold limits for evaluating water quality.

5.0 Mitigation Monitoring and Reporting Program

Project-Specific Mitigation Measure	Mitigation Procedures	Mitigation Timing	Mitigation Responsibility	Monitoring and Reporting Procedure
<p>and PM peak traffic periods (7:00 – 9:00 AM and 4:00 – 6:00 PM), if conditions demonstrate the need.</p> <ul style="list-style-type: none"> • Include a parking management plan for ensuring that construction worker parking results in minimal disruption to surrounding uses. • Include a public information and signage plan to inform student, faculty and staff of the planned construction activities, roadway changes/closures, and parking changes. • Store construction materials only in designated areas that minimize impacts to nearby roadways. • Limit the number of lane closures during peak hours to the extent possible. At no time will more than one lane on any roadway be closed. Inform the Campus at least two weeks before any partial road closure. • Use California Department of Transportation (Caltrans) certified flag persons for any temporary lane closures to minimize impacts to traffic flow, and to ensure safe access into and out of the project sites. • Install traffic control devices as specified in the California Department of Transportation Manual of Traffic Controls for Construction and Maintenance Work Zones. • When a pedestrian/bicycle path is to be closed, detour signs will be installed to clearly designate an alternative route. Temporary fencing or other indicators of pedestrian and bicycle hazards will be provided. • To minimize disruption of emergency vehicle access, affected jurisdictions (Campus Police, City Police, County Sheriff, and City Fire Department) will be consulted to identify detours for emergency vehicles, which will then be posted by the construction contractor. • Ensure that access to fire hydrants remains available at all times. • Coordinate with local transit agencies for 				

5.0 Mitigation Monitoring and Reporting Program

Project-Specific Mitigation Measure	Mitigation Procedures	Mitigation Timing	Mitigation Responsibility	Monitoring and Reporting Procedure
temporary relocation of routes or bus stops in works zones, as necessary. <ul style="list-style-type: none"> Coordinate with other projects under construction in the immediate vicinity including the Kresge College project, so an integrated approach to construction-related traffic is developed and implemented. 				
SHW Mitigation TRA-6: Consistent with LRDP Mitigations TRA-4A and TRA-4C, the Campus shall monitor pedestrian traffic and transit times at the Heller Drive crossing adjacent to the project site and, if warranted, extend the existing crossing guard program to this crossing.	Campus will monitor pedestrian traffic and extend the crossing guard program should the crossing at Heller Drive to the project site become impassable.	Ongoing, throughout construction.	Transportation and Parking Services/PPDO	PPDO will incorporate into the Campus's annual mitigation monitoring program.
Tribal and Cultural Resources				
SHW Mitigation TCR-1: Implement SHW Mitigation CULT-2A through 2C.	Implement SHW Mitigation CULT-2A through 2C.	Refer to SHW Mitigation CULT-2A through 2C.	Refer to SHW Mitigation CULT-2A through 2C.	Refer to SHW Mitigation CULT-2A through 2C.
Utilities and Service Systems				
SHW Impact UTIL-1: Implement SHW Mitigations BIO-1A through 1D; BIO-5B; and CULT-2A through 2C.	Implement SHW Mitigations BIO-1A through 1D; BIO-5B; and CULT-2A through 2C.	Refer to SHW Mitigations BIO-1A through 1D; BIO-5B; and CULT-2A through 2C.	Refer to SHW Mitigations BIO-1A through 1D; BIO-5B; and CULT-2A through 2C.	Refer to SHW Mitigations BIO-1A through 1D; BIO-5B; and CULT-2A through 2C.
SHW Mitigation UTIL-3: Implement SHW Mitigations BIO-1A through 1D; BIO-5B; and CULT-2A through 2C.	Implement SHW Mitigations BIO-1A through 1D; BIO-5B; and CULT-2A through 2C.	Refer to SHW Mitigations BIO-1A through 1D; BIO-5B; and CULT-2A through 2C.	Refer to SHW Mitigations BIO-1A through 1D; BIO-5B; and CULT-2A through 2C.	Refer to SHW Mitigations BIO-1A through 1D; BIO-5B; and CULT-2A through 2C.