

**NORTH CAMPUS OPEN SPACE RESTORATION PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM**

March 2016

Number	Measure	How Implemented	Implementer	Phase Implemented	Phase Monitored	Who Monitors
Aesthetics						
AES-1a	1. Temporary protective fencing shall be installed as close to the perimeter of the tree's canopy dripline as possible. The tree protection zone fencing shall be maintained in good condition while grading occurs on the northern portion of the project site (Phase 1 of Project development). To the extent possible, construction activities, equipment, vehicles, and personnel shall remain outside the tree protection fenced areas. (the trees to be protected are shown in Figure 5.1-6 No. 11 –trees near the University Village neighborhood).)	Incorporated into Contract Documents, and Construction Staging and Fencing Plans	Construction – Grading Contractor	Pre-construction continuing through construction	Construction	UCSB Inspector/ DC&S and/or CCBER Project Manager
	2. Proposed landscape berms and bioswales shall be located outside the dripline of the protected trees shown in Fig 5.16 No. 11-trees near the University Village neighborhood)___	Incorporated into Contract Documents, Project Construction Plans, and Grading Plans	Design consultant to incorporate the berm and bioswales into project plans. Construction -grading contractor	Design and grading phases	Design and grading phases	DC&S and CCBER Project Manager

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			would implement the work.			
	3. If grading or trenching must occur within the fenced tree protection zone, a certified arborist shall evaluate the proposed construction activities and provide guidance to minimize impacts to the trees (i.e., methods to minimize root damage, ground compaction, physical damage to the tree, etc.).	Incorporated into Contract Documents,	DCS/CCBER project manager will hire an arborist. The arborist will be onsite during project activities to monitor the trees	Construction phase	Construction phase	DC&S Inspector and/CCBER Project Manager
	4. Soil, construction materials, and equipment shall not be stored within the tree protection zone.	Incorporated into Contract Documents, Project Construction Plans, and Grading Plans	Construction -grading contractor	Construction phase	Construction phase	DC&S Inspector and/or CCBER Project Manager
	5. Any protected tree that is removed or damaged (more than 20% encroachment into the tree's canopy dripline) shall be replaced at a location similar to the removed or damaged tree on a 1:1 basis with a 15	Incorporated into Contract Documents,	In the event a tree is removed or damaged the Construction Contractor	Construction phase	Construction phase	DC&S Inspector and DC&S/CCBER Project Manager

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	gallon size replacement tree. Replacement trees shall be planted prior to the completion of Project construction activities and maintained until established (five years).		will be responsible for replacing the tree			
AES-2a	The five (5) scenic landscape trees described on MND Page 5.1-23) — removed from the golf course parcel shall be replaced at a 1:1 basis. A tree replacement planting plan shall be prepared, and at minimum shall include the following information:	Incorporated into Contract Documents, Project Construction Plans,	Design consultant will include tree locations on project plans as guided by CCBER Project Manager	Post Construction- Grading phases and Restoration and Planting phase	Restoration and Planting phase	CCBER Project Manager
	1. Replacement tree locations. The replacement trees shall be located on the project site.					
	2. Replacement tree size, planting, maintenance, and performance (survival and growth) specifications.					
	A five-year monitoring program for the replacement trees with specific performance standards to ensure that the replacement trees become established. If monitoring indicates the replacement trees are not in conformance with the specified					

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	performance standards a revised or supplemental planting plan shall be developed					
Air Quality						
AQ-1a	1. Water trucks shall be used during construction to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this will require two daily applications (once in late morning and once at the end of the workday). Increased watering is required whenever wind speeds exceed 15 mph. Reclaimed water shall be used for dust suppression.	Incorporated into Contract Documents, Demolition, Grading and Building Plans	Construction workers.	Demolition, Grading and Construction phases	Demolition, Grading and Construction phases	Construction Contractor and D&CS Inspector
	2. Soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting material off-site or onto the site shall be tarped from the point of origin.	Incorporated into Contract Documents, Demolition, Grading and Building Plans	Construction workers will cover soil and tarp trucks.	Demolition, Grading and Construction phases	Demolition, Grading and Construction phases	Construction Contractor and D&CS Inspector
	3. After clearing, grading, earth moving, or excavation is completed, the disturbed area shall be treated by watering, revegetating, or by spreading soil binders until the area is revegetated so that dust generation	Incorporated into Contract Documents, Demolition, Grading and Building Plans	Construction workers	Demolition, Grading and Construction phases	Demolition, Grading and Construction phases	Construction Contractor and D&CS Inspector

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	will not occur.					
	4. Gravel pads shall be installed at all vehicle access points to minimize tracking of dirt and mud onto roadways.	Incorporated into Contract Documents, Demolition, Grading and Building Plans	Construction workers	Site Preparation, Demolition, Grading and Construction phases	Site Preparation, Demolition, Grading and Construction phases	Construction Contractor, D&CS Inspector
	5. Construction contractors shall designate a monitor for the dust control program. The monitor's work schedule shall include holiday and weekend periods when work at the project site may not be in progress. The name and telephone number of such persons shall be provided to the APCD prior to grading	Incorporated into Contract Documents, Demolition, Grading and Building Plans	Construction Contractor will designate a monitor. D&CS Project Manager will provide APCD with the information.	Pre-Construction and Site Preparation phases.	Pre-Construction, Site Preparation, Demolition, Grading and Construction phases	D&CS Project Manager and Inspector will ensure information is sent to APCD and ensure a designated monitor is available during the project duration.
	6. All required dust control measures shall be shown on project grading and building plans.	Dust control measures shall be incorporated into Contract Documents	The project architect will include these measures in the plans.	Pre-construction planning phase, Demolition, Grading and	Planning, Pre-construction, Demolition, Grading and Construction phases	D&CS Project Manager and CP&D Planner will ensure the

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		and Demolition, Grading and Building Plans		Construction phases		information is included on the project plans and in contract documents.
AQ-2a	The following emission control measures have been recommended by the Santa Barbara County APCD. All of these measures should be implemented at the project site during construction.					
	1. All portable construction equipment shall be registered with the State's portable equipment registration program OR shall obtain an APCD permit.	Incorporated into Contract Documents, Demolition, Grading and Building Plans	Construction Contractor shall ensure equipment is registered	Planning, Pre-construction, Site Preparation, Demolition, Grading and Construction phases	Planning, Pre-construction, Site Preparation, Demolition, Grading and Construction phases	D&CS Project Manager will ensure the equipment is registered.
	2. All commercial diesel vehicles are subject to Title 13, Section 2485 of the California Code of Regulations, which limits engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading	Incorporated into Contract Documents, Demolition, Grading and Building Plans	Construction workers will adhere to this time limit.	Site Preparation, Demolition, Grading and Construction phases	Site Preparation, Demolition, Grading and Construction phases	Construction Contractor and D&CS Inspector

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	and unloading shall be limited to five minutes; electric auxiliary power units should be used whenever possible.					
	3. Diesel construction equipment meeting the California Air Resources Board's Tier 1 emission standards for off-road heavy-duty diesel engines shall be used. Equipment meeting Tier 2 or higher emission standards should be used to the maximum extent feasible.	Incorporated into Contract Documents, Demolition, Grading and Building Plans	Construction Contractor will ensure equipment meets these standards.	Site Preparation, Demolition, Grading and Construction phases	Site Preparation, Demolition, Grading and Construction phases	D&CS Project Manager and Inspector
	4. Diesel powered equipment should be replaced by electric equipment whenever feasible.	Incorporated into Contract Documents, Demolition, Grading and Building Plans	Construction Contractor	Site preparation, demolition, grading and construction phases	Site preparation, demolition, grading and construction phases	D&CS Project Manager
	5. If feasible, diesel construction equipment shall be equipped with selective catalytic reduction systems, diesel oxidation catalysts and diesel particulate filters as certified and/or verified by EPA or California.	Incorporated into Contract Documents, Demolition, Grading and Building Plans	Construction Contractor	Site preparation, demolition, grading and construction phases	Site preparation, demolition, grading and construction phases	D&CS Project Manager
AQ-3a	The following emission control					

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	measures have been recommended by the Santa Barbara County APCD. All of these measures should be implemented at the project site during construction.					
	1. All portable construction equipment shall be registered with the State's portable equipment registration program OR shall obtain an APCD permit.	Incorporated into Contract Documents, Demolition, Grading and Building Plans	Construction Contractor	Site preparation, demolition, grading and construction phases		
	2. The engine size of construction equipment shall be the minimum practical size.	Incorporated into Contract Documents, Demolition, Grading and Building Plans	Construction Contractor	Site preparation, demolition, grading and construction phases	Site preparation, demolition, grading and construction phases	D&CS Inspector
	3. The number of pieces of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at any one time	Incorporated into Contract Documents, Demolition, Grading and Building Plans	Construction Contractor, site foreman shall ensure this measure is met.	Site preparation, demolition, grading and construction phases	Site preparation, demolition, grading and construction phases	Construction Contractor and D&CS Project Manager and Inspector
	4. Construction equipment shall be maintained in tune per the manufacturer's specifications.	Incorporated into Contract Documents, Demolition,	Construction Contractor	Site preparation, demolition, grading and	Site preparation, demolition, grading and	D&CS Project Manager and Inspector

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		Grading and Building Plans		construction phases	construction phases	
	5. Catalytic converters shall be installed on gasoline-powered equipment, if feasible	Incorporated into Contract Documents, Demolition, Grading and Building Plans	Construction Contractor	Site preparation, demolition, grading and construction phases	Site preparation, demolition, grading and construction phases	D&CS Inspector and Project Manager
Biological Resources						
BIO-1a	A project-specific Tarplant Restoration Plan shall be prepared by a qualified biologist for vernal pool restoration activities proposed for the Whittier Parcel. The Plan shall address tarplant impacts and appropriate mitigation and conservation measures. Conservation measures may include maintaining existing stormwater inputs to undisturbed tarplant populated areas, retention of soil seed banks, seed collection, transplanting of individual plants, plant propagation, and revegetation and preservation of designated mitigation sites in the vicinity of the project site or sites.	CCBER biologists or contracted biologist will prepare the Tarplant Restoration Plan as part of the restoration plan requirements. The Plan will be incorporated into the Restoration Plant	CCBER biologist	Planning and permitting phase	Planning and permitting phase	CCBER Project Manager and CP&D Planner
BIO-1b	Implementation of Tarplant Restoration Plans will be conducted	Requirements will be	CCBER Biologists	Restoration phase	Restoration phase	CCBER Project

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	under the direction of a qualified biologist. Restoration shall include initial site preparation, planting, and ongoing maintenance and monitoring efforts. Restoration efforts shall continue for at least five years, and shall be considered successful when a self-sustaining population as evidenced by survival and natural reproduction of southern tarplant is present within the mitigation site. If the mitigation site is a preserve for an existing population, the initial tarplant numbers documented by a focused survey during the peak blooming period will provide the baseline population data. This baseline population number must remain steady or increase over the mitigation period to show establishment of self-sustaining populations on the site. Newly created habitat areas will use the first year tarplant population data as the baseline conditions. This baseline population number must also remain steady or increase over the mitigation period to show establishment of self-	incorporated into the Restoration plan by CCBER biologists	and Project Manager			Manager

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	sustaining populations on the site.					
BIO-2a	To avoid disturbance or loss of active bird nests during development under the 2010 LRDP, any removal of eucalyptus, coast live oak, pine, cypress, or other trees that provide nesting habitat for birds, or disturbance of natural grassland areas shall be conducted between September 15 and February 15, outside of the typical nesting season.	Incorporated into Bid Documents, Contract Documents, Demolition, Grading and Building Plans	Construction Contractor	Site preparation and construction phases	Site preparation and construction phases	D&CS Project Manager
BIO-2b	If tree removals or disturbance of natural grassland areas are determined to be necessary during the typical nesting season (February 15 to September 15), nesting bird surveys shall be conducted by a qualified biologist immediately prior to the proposed action. Surveys shall follow standard protocols as established by CDFG and/or CCC. If the biologist determines that a tree or natural grassland area is being used for nesting at that time, disturbance shall be avoided until after the young have fledged from the nest and achieved independence. If no nesting is found to occur, necessary tree	Incorporated into Bid Documents, Contract Documents, Demolition, Grading and Building Plans A qualified biologist will be hired to conduct survey and prepare a report	The qualified biologist will conduct survey and prepare report	Pre-construction phase	Pre-construction phase	D&CS Inspector and Project Manager and CP&D Planner

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	removal or grassland disturbance could then proceed.					
BIO-2c	To avoid indirect disturbance of active bird nests by project construction occurring within the typical nesting season, a qualified biologist shall be retained to conduct one or more pre-construction surveys per standard protocols approximately 1 week prior to construction, to determine presence/absence of active nests adjacent to the project site. If no breeding or nesting activities are detected within 200 feet of the proposed work area, noise-producing construction activities may proceed. If breeding/nesting activity is confirmed, work activities within 200 feet of the active nest shall be delayed until the young birds have fledged and left the nest.	Incorporated into Bid Documents, Contract Documents, Demolition, Grading and Building Plans A qualified biologist will be hired to conduct survey and prepare a report	CP&D will hire a qualified Biologist to conduct survey and prepare report	Pre-construction phase	Pre-construction phase	D&CS Inspector and Project Manager and CP&D Planner
BIO-3a	Prior to commencement of any ground disturbing activities, UCSB shall obtain compliance with the Federal Endangered Species Act (FESA) for potential impacts on the tidewater goby and FESA compliance for the California red-legged frog in	Incorporated into Bid Documents, Contract Documents CP&D will	CP&D Planner	Pre-construction and planning stages	Pre-construction and planning stages	DCS and CCBER Project Managers

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	the form of take permits/authorizations or written documentation from the U.S. Fish and Wildlife Service (USFWS) that the proposed project would not result in take of the tidewater goby and California red-legged frog, or would not otherwise adversely affect these species. Should a take permit/authorization be required, or conditions imposed by the USFWS to ensure that no take would result from the project, the University shall implement all the terms and conditions of the USFWS permits, authorizations, or recommendations to the satisfaction of the USFWS.	prepare and submit permit applications to agencies to obtain Biological Opinion				
BIO-3b	Prior to commencement of any ground disturbing or dewatering activities, the University shall develop a salvage and relocation plan for the tidewater goby, California red-legged frog, and western pond turtle that is approved by the USFWS.	Incorporated into Bid Documents, Contract Documents CP&D will hire qualified biologist to prepare a salvage and	Hired qualified biologist will prepare the plan	Pre-Construction and Post Construction phases	Pre-Construction and Construction phases	CP&D

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		relocation plan for these species.				
BIO-4a	UCSB shall obtain Clean Water Act (CWA) regulatory compliance in the form of a permit/authorization from the Corps or written documentation from the Corps that no permit would be required for the proposed habitat restoration project. Should a permit be required, the applicant shall implement all the terms and conditions of the permit to the satisfaction of the Corps. Corps permits and authorizations require applicants to demonstrate that the proposed project has been designed and will be implemented in a manner that avoids and minimizes impacts on aquatic resources.	CP&D will prepare and submit applications to the regulatory agencies to obtain permits.	CP&D planner	Planning and pre-construction phases	Planning and pre-construction phases	DC&S AND CCBER Project Managers
BIO-4b	The applicant shall obtain compliance with section 1602 of the California Fish and Game Code (Streambed Alteration Agreements) in the form of a completed Streambed Alteration Agreement or written documentation from the CDFW that no agreement would be required for the Project.	CP&D will prepare and submit applications to the regulatory agencies to obtain permits.	CP&D planner	Planning and pre-construction phases	Planning and pre-construction phases	DC&S and CCBER Project Managers

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	Should an agreement be required, UCSB shall implement all the terms and conditions of the agreement to the satisfaction of the CDFW.					
Hazards and Hazardous Materials						
HAZ-1a	Vegetation clearing activities shall not occur on the project site when the Santa Barbara County Fire Department has issued a Red Flag Warning for the project region.	Incorporated into Bid Documents, Contract Documents, Demolition, Grading, and Restoration and Management Plan	Construction Contractor and Maintenance Crew/Restoration Biologist	Grading phase and post-construction management phase	Grading phase and post-construction management phase	D&CS and CCBER Project Managers
HAZ-2a	A 100-foot wide defensible space shall be established and maintained around the northern and eastern perimeters of the project site. The UCSB Fire Protection Division of the Environmental Health and Safety (EHS) Department shall review and approve proposed planting and maintenance plans to ensure that appropriate defensible space is provided and maintained on the	Incorporated into Restoration and Management Plans for the project site	CCBER Project Manager will ensure the language is put into the Restoration and Management Plan documents.	Post construction and grading phase and during and beyond restoration phase	Restoration and Maintenance phases	CCBER Project Manager and Physical Facilities. EHS

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	project site.		EHS will review and approve plans			
Noise						
NOI-1a	1. Construction equipment shall be properly maintained and be outfitted with feasible noise-reduction devices to minimize construction generated noise.	Incorporated into all Contract Documents and Project Plans	Construction Contractor	Site preparation, demolition, grading and construction phases	Site preparation, demolition, grading and construction phases	D&CS Inspector and Project Manager
	2. Stationary noise sources such as generators and pumps are to be located at least 100 feet from noise-sensitive land uses, <u>and where feasible, 200 feet or more.</u>	Incorporated into all Contract Documents and Project Plans	Construction Contractor	Site preparation, demolition, grading and construction phases	Site preparation, demolition, grading and construction phases	D&CS Inspector and Project Manager
	3. Laydown and construction vehicle staging areas are to be located at least 100 feet from noise-sensitive land uses.	Incorporated into all Contract Documents and Project Plans	Construction Contractor	Site preparation, demolition, grading and construction phases	Site preparation, demolition, grading and construction phases	D&CS Inspector and Project Manager
	4. Whenever possible, academic, administrative and residential areas that will be subject to construction noise will be informed in writing at	Incorporated into all Contract Documents	D&CS Project Manager in coordination	Site preparation, demolition, grading and	Site preparation, demolition, grading and	D&CS Inspector and Project Manager

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	least one week before the start of construction activities.	and Project Plans	with the Construction Contractor	construction phases	construction phases	
	5. Loud construction activities, such as jackhammering, concrete sawing, asphalt removal, and trenching operations, within 200 feet of a residential or academic building shall not be scheduled during finals week.	Incorporated into all Contract Documents and Project Plans	Construction Contractor	Site preparation, demolition, grading and construction phases	Site preparation, demolition, grading and construction phases	D&CS Director and Project Manager
	6. Loud construction activity as described in item 5 conducted within 200 feet of an academic use shall, to the extent feasible, be scheduled during holidays, Thanksgiving break, Christmas break, spring break, or summer break.	Incorporated into all Contract Documents and Project Plans	Construction Contractor	Site preparation, demolition, grading and construction phases	Site preparation, demolition, grading and construction phases	D&CS Inspector and Project Manager
	7. Loud construction activity within 200 feet of a residential building shall be restricted to the hours between 8:00 AM and 5:00 PM, Monday through Friday, and no work shall occur on weekends or federal holidays.	Incorporated into all Contract Documents and Project Plans	Construction Contractor	Site preparation, demolition, grading and construction phases	Site preparation, demolition, grading and construction phases	D&CS Inspector and Project Manager
Transportation and Traffic						
TRF-1a	<u>If approved by the City of Goleta, the one-way project site driveway connecting the parking lot to the City right-of-way on Whittier Drive shall</u>	UCSB Real Estate Office and CP&D Planner will	City of Goleta Planners/Public Works	Post Construction and Restoration	Post Construction and Restoration	CCBER Project Manager and CP&D

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	<p><u>be widened and sized as a commercial driveway for two-way travel per the 2011 County of Santa Barbara standards.</u> UCSB shall request that the City of Goleta provide approximately <u>25-50</u> -feet of red curb on both sides of the project site entrance driveway to provide adequate sight distance along Whittier Drive for vehicles exiting the site. If feasible <u>If approved by the City</u>, curb painting shall be installed prior start of construction at the project site. In the event that UCSB obtains permission to use the eastern driveway to the existing parking lot, UCSB shall coordinate street and driveway improvements with the City of Goleta prior to the public's use of the driveway to the public's use of the reconfigured parking lot.</p>	work with the City of Goleta to implement this mitigation measures		phases	phases	Planner

*D&CS: Design and Construction Services, CP&D: Campus Planning and Design, CCBER: Cheadle Center for Biodiversity and Ecological Restoration