

STATE OF CALIFORNIA
DEPARTMENT OF FISH AND WILDLIFE



GAVIN NEWSOM, Governor
MEGHAN HERTEL, Director

Central Region
1234 East Shaw Avenue
Fresno, California 93710
(559) 243-4005
wildlife.ca.gov

July 15, 2026

Phillip Woods, Director of Physical & Environmental Planning
Physical Operations, Planning and Development
University of California, Merced
5200 North Lake Rd
Merced, California 95343
(209) 228-4400
ceqa@ucmerced.edu

**Subject: Solar Infrastructure and Battery Energy Storage System Project (Project)
Mitigated Negative Declaration (MND)
State Clearinghouse No. 2026060592**

The California Department of Fish and Wildlife (CDFW) received an MND from Merced County (County) for the above-referenced Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under Fish and Game Code.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id.*, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

¹ CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

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CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. Likewise, to the extent implementation of the Project as proposed may result in “take” as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code may be required.

Nesting Birds: CDFW has jurisdiction over actions with the potential to result in the disturbance or destruction of active nest sites or unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs, or nests include sections 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

Unlisted Species: Species of plants and animals need not be officially listed as Endangered, Rare, or Threatened (E, R, or T) on any State or federal list to be considered E, R, or T under CEQA. If a species can be shown to meet the criteria for E, R, or T, as specified in the CEQA Guidelines section 15380, CDFW recommends it be fully considered in the environmental analysis for the Project.

PROJECT DESCRIPTION SUMMARY

Proponent: University of California, Merced (UC Merced)

Objective: The Project proposes demolition of an existing 1-megawatt (MW) ground-mounted solar array facility, and the construction of an up to 6-MW solar facility consisting of a dual-axis tracking system and a new battery energy storage system (BESS) with a minimum storage capacity of 3 megawatt-hour (MWh) on an approximate 86.7-acre Project site. This would also include upgrades to existing fire water storage tank and/or the construction of a new water storage tank on-site, road improvement of the access road off Cottonwood Loop, and installation of a chain-link security fence topped with barbed wire.

Location: The approximately 86.7-acre Project site is located on the UC Merced campus within the City of Merced (City), Merced County (County), California. The Project site is located approximately 4.7 miles east of State Route (SR) 59 and 4.3 miles north of SR 140. The proposed Project site is located east of the central portion of the UC Merced campus, off of Cottonwood Loop, it is bordered by Cottonwood Loop and Le Grand Canal to the north, Le Grand Canal and central campus to the east, and undeveloped land to the south and west. The Project site is currently partially developed with an approximately 10-acre, 1-MW ground-mount solar array site built in 2009. A chain-link fence surrounds the perimeter of the existing solar array site. An approximately 0.25-mile-long access road off Cottonwood Loop provides access to the existing solar array site. The remaining portion of the Project site surrounding the existing solar array site is undeveloped.

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COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist the County in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the MND for this Project.

As stated in the MND and supported by aerial imagery, 10 acres of the Project site has already been developed into solar arrays. The remaining portions of the northern half were previously graded and the southern half was previously farmed as an irrigated pasture.

The MND acknowledges that the Project site is within the geographic range of several special-status animal species and proposes specific mitigation measures to reduce impacts to less than significant. There is an Incidental Take Permit issued for this Project (No. 2081-2009-010-04; ITP) that authorizes take of: State threatened California tiger salamander (*Ambystoma californiense*), San Joaquin kit fox (*Vulpes macrotis mutica*) and Swainson's hawk (*Buteo swainsoni*); and State endangered succulent owl's clover (*Castilleja campestris* ssp. *Succulenta*), Colusa grass (*Neostapfia colusana*), and San Joaquin Valley Orcutt grass (*Orcuttia inaequalis*) (collectively, Covered Species). Impacts to the Covered Species are intended to be minimized and mitigated through the ITP. As such, CDFW concurs with the minimization measures (ITP MM BIO-1 through -64) that are consistent with the current version of the ITP. If the ITP is amended in the future, the measures should be implemented as amended.

The MND evaluates the Project's potential impacts on several additional special-status species whose geographic ranges overlap the Project site and concludes impacts to these species would be less than significant, either with or without mitigation incorporated. Accordingly, the MND proposes multiple mitigation measures to reduce the Project's impacts on special-status species to a less-than-significant level. CDFW has concerns about the ability of some of these measures to reduce impacts to less than significant and avoid unauthorized take for additional special-status animal species, including but not limited to: the State candidates western burrowing owl (*Athene cunicularia hypugaea*) and Crotch's bumble bee (*Bombus crotchii*); the State candidate and federally proposed threatened western spadefoot (*Spea hammondi*); and the State species of special concern American badger (*Taxidea taxus*). Based on the species assessments provided in the MND, CDFW also has concerns about ITP implementation for succulent owl's clover, Colusa grass, and San Joaquin Orcutt grass.

Western Burrowing Owl

The MND states that western burrowing owl (BUOW) was documented within the Project site and suitable nesting and foraging habitat is located throughout the Project site and vicinity. The MND provides LRDP MM BIO-9a to mitigate Project impacts to BUOW, which, in the second bullet point of section 2, requires that a qualified biologist conduct preconstruction surveys within the Project site and 500-foot buffer around the Project site

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following the 2012 Staff Report on Burrowing Owl Mitigation (2012 Staff Report; CDFG 2012). LRDP MM BIO-9a also requires establishment of no-disturbance buffers following the 2012 Staff Report and details the process of den excavation for potential, known, and occupied burrows. CDFW concurs with the portions of LRDP MM BIO-9a pertaining to surveys and avoidance; however, CDFW does not concur with the survey distances and approach to BUOW burrow avoidance and minimization. The 2012 Staff Report recommends an avoidance buffer of 500 meters (~1600 feet), which means the survey distance should be larger than 500 feet outside of the Project site if feasible. CDFW also does not concur with the avoidance buffers proposed because they are not consistent with the buffers recommended in the 2012 Staff Report for full avoidance. Please also be advised that burrow destruction and BUOW relocation described in LRDP MM BIO-9a would not be permitted until the ITP is amended to authorize take of BUOW. If occupied BUOW burrows are detected, CDFW recommends adding the following measures to the avoidance measures:

Recommended Mitigation Measure 1: BUOW Avoidance Buffer

Should a BUOW or known BUOW den (active or inactive) be detected, either during pre-construction surveys or construction activities, CDFW recommends that no-disturbance buffers, as outlined in the 2012 Staff Report on Burrowing Owl Mitigation (CDFG 2012), be implemented prior to and during any ground-disturbing activities. CDFW also recommends that these buffers be implemented for both wintering and breeding BUOW.

Recommended Mitigation Measure 2: BUOW Take Authorization

If a BUOW or known BUOW den (active or inactive) is detected, and the no disturbance buffers outlined in the 2012 Staff Report on Burrowing Mitigation are not feasible, consultation with CDFW is warranted to discuss how to implement the Project and avoid take.

If take cannot be avoided, take authorization through amendment of the existing ITP, pursuant to Fish and Game Code section 2081 subdivision (b) is necessary to comply with CESA.

Crotch's Bumble Bee

The Project site is within the range of Crotch's bumble bee (CBB). A recent (2023) occurrence was documented less than 4 miles west of the Project site and a 2024 occurrence was documented less than 2 miles east of the Project site. CBB are known to inhabit areas of grasslands, scrub habitat, and ruderal vegetation that contain requisite habitat elements for nesting, such as small mammal burrows and bunch/thatched grasses. The MND states that these habitat elements may be present within the Project site.

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CDFW concurs with portions of 2020 LRDP MM BIO-4 requiring that focused surveys be performed prior to construction. Due to the difficulty of locating all CBB nests within a given area, if nesting or foraging CBB is detected, immediate consultation with CDFW is recommended to establish an appropriate avoidance area and ensure Project-related activities would avoid unauthorized take of CBB. CDFW recommends adding the following measures to the survey details in the first bullet point:

Recommended Mitigation Measure 3: CBB Habitat Assessment

CDFW recommends a qualified biologist conduct a habitat assessment to determine if the Project site and the immediate surrounding vicinity contain habitat suitable to support CBB. Potential nesting sites, which include all small mammal burrows, perennial bunch grasses, thatched annual grasses, brush piles, old bird nests, dead trees, and hollow logs would need to be documented as part of the assessment.

Recommended Mitigation Measure 4: CBB Surveys

If potentially suitable habitat is identified, CDFW recommends that a qualified biologist conduct focused surveys for CBB, and their requisite habitat features following the methodology outlined in the Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023).

CDFW does not concur with the second bullet point of 2020 LRDP MM BIO-4. This measure states in part: "If Crotch['s] bumble bees or potential Crotch['s] bumble bees are observed within the development area, a plan to protect Crotch['s] bumble bee nests and individuals shall be developed and implemented in consultation with CDFW." If CBB or potential CBB are observed within the Project site, it is recommended that CDFW be consulted to determine appropriate CBB take avoidance methods within the Project site. If take cannot be avoided, take authorization through ITP amendment is necessary to comply with CESA. Thus, CDFW recommends adding the following measure:

Recommended Mitigation Measure 5: CBB Avoidance

If CBB is detected, then CDFW recommends that all small mammal burrows and thatched/bunch grasses be avoided by a minimum of 50 feet to avoid take and potentially significant impacts. If ground-disturbing activities will occur during the overwintering period (October through February), consultation with CDFW is warranted to discuss how to implement Project activities and avoid take. Any detection of CBB prior to or during Project implementation also warrants consultation with CDFW to discuss how to avoid take.

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Recommended Mitigation Measure 6: CBB Take Authorization

If take cannot be avoided, take authorization through the amendment of the existing ITP, pursuant to Fish and Game Code section 2081 subdivision (b) is necessary to comply with CESA.

Western Spadefoot

The Project site is within the known geographic range of western spadefoot (WESP). WESP occurs primarily in grasslands, seasonal wetlands, vernal features (e.g., alkali playas), agricultural sumps, and seasonally flooded areas with appropriate upland habitat. Based on aerial imagery, there appear to be seasonal wetlands and vernal pools within the Project site and vicinity. The MND stated that there are seasonal wetlands within the Project site.

CDFW concurs with portions of PS MM BIO-1 that require habitat assessments and focused surveys be conducted prior to construction. CDFW recommends adding the following measures to the survey details and avoidance measures:

Recommended Mitigation Measure 7: Preconstruction Survey for WESP

Prior to any ground-disturbing activities that may occur as part of the Project, CDFW recommends that a qualified biologist conduct focused surveys for WESP, using appropriate survey methodologies.

Recommended Mitigation Measure 8: WESP Avoidance Buffer

If burrows, cracks, loose soil, soft soil areas immediately adjacent to water features, or other refugia are found to be used by WESP during focused surveys, avoidance whenever possible is encouraged via delineation and observance of a 50-foot no-disturbance buffer around the outermost edge of these habitats. If the species is observed within the Project site, Project activities in the immediate vicinity should cease, allowing individuals to leave the Project site on their own accord.

On September 24, 2025, the California Fish and Game Commission (FGC) received a petition to list the northern population of WESP as a threatened species and the southern population of WESP as an endangered species under CESA. At the FGC meeting on April 16, 2026, CDFW presented its determination that the petition provided sufficient scientific information that the petitioned action to list WESP under CESA may be warranted; however, the FGC has deferred its decision twice on WESP candidacy. It is possible that a decision may be made during the August 2026 meeting. If WESP becomes a candidate for listing or ultimately becomes listed as threatened or endangered pursuant to CESA, take authorization through the amendment of the existing ITP, pursuant to Fish and Game Code section 2081, subdivision (b), will be necessary to comply with CESA if full avoidance of WESP cannot be achieved. Please note that implementation of the recommended

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measures above would help minimize impacts to WESP as required by CEQA but may not fully avoid impacts and thus take. Additional measures, including a substantially larger no-disturbance buffer, may need to be implemented to avoid take of WESP. In the event that WESP becomes protected under CESA, CDFW recommends early consultation to help identify if avoidance is feasible or, if not, to initiate discussions regarding the need for ITP amendment.

American Badger

The MND states that American badger (AMBA) is most likely to occur on-site as transient individuals either foraging or dispersing through the site. The MND also states that existing general Project measures and San Joaquin kit fox (SJKF) measures within the ITP will minimize impacts to AMBA. Because these measures address SJKF specifically or the Project generally, CDFW recommends including the following measures to ensure full avoidance and minimization for AMBA:

Recommended Mitigation Measure 9: AMBA Surveys

CDFW recommends that a qualified biologist conduct focused surveys for AMBA, as well as their requisite habitat features, to evaluate potential impacts resulting from ground disturbance.

Recommended Mitigation Measure 10: AMBA Avoidance

Avoidance whenever possible is encouraged via delineation and a 50-foot no disturbance buffer around burrows. CDFW also advises that any individuals observed be allowed to leave the Project site of their own volition.

Special-Status Plants

CDFW does not concur with the MND's conclusions pertaining to succulent owl's clover, Colusa grass, or San Joaquin Valley Orcutt grass. All three plant species have been documented in the vicinity of the Project (CDFW 2026). Succulent owl's clover has been identified about 0.3 and 0.6 miles west of the Project site, about 0.5 miles east of the Project site, and within 900 ft north of the Project Area (CDFW 2026). Colusa grass and San Joaquin Valley Orcutt grass have been identified within one mile east of the Project site (CDFW 2026). The MND states that the Project site contains "only small and shallow seasonal wetlands with moderately to strongly acidic soil in shallow alluvial to loam soil over a duripan". This environment is similar to the acidic soils with variable textures under pools where San Joaquin Valley Orcutt grass have been found (USFWS 2005). Additionally, the Project site is located within the Southern Sierra Foothills Vernal Pool Region where all three species have historical distributions (USFWS 2005). Because these are cryptic vernal pool species, they may have been undetectable during the November 11, 2025 and May 19, 2026 surveys, however they could still have seed banks within the Project site. For example, Colusa grass can be dormant for years (at least 3 years documented) before germinating during a wet rain year (Keeley and Zedler 1998).

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CDFW recommends implementing ITP Condition of Approval 7.24, requiring in part a CDFW-approved Designated Biologist to conduct botanical surveys for succulent owl's clover, Colusa grass, and San Joaquin Orcutt grass prior to the Permittee beginning Covered Activities in areas with intact vernal pool, swale, or wetland habitat. This measure is consistent with ITP MM BIO-17, and thus, CDFW concurs with this measure. CDFW also concurs with ITP MM BIO-16 and -19 pertaining to the Salvage Plan and implementation of the Salvage Plan for these species.

Editorial Comments and/or Suggestions

Wildlife Friendly Fencing: The MND states that a perimeter security fence will be constructed around the solar arrays and BESS. This will also include construction of a temporary CTS exclusion fence to prevent CTS from entering the Project site during construction and be removed immediately after construction activities have been completed. CDFW concurs with the need to install the temporary CTS exclusion fencing around the Project site to prevent CTS from entering. CDFW also recommends that this fencing fully encompasses the Project site because Le Grand Canal may not be an effective barrier to CTS migration. CDFW recommends constructing the permanent perimeter security fence with a wildlife friendly design that meets the goals of allowing wildlife to move freely through the Project site during operation. This would include raising the fence 4 to 6 inches above the ground leaving a gap between the fence mesh and the ground or using a large mesh with regular holes of 4-6 inches minimum for wildlife (SJKF, for example) to pass through. The bottom of the fence fabric shall be knuckled (wrapped back to form a smooth edge) to protect wildlife that passes under the fence. As such, CDFW recommends that perimeter fencing be designed to allow for passage of small and medium-sized wildlife, while impeding the passage of larger predators such as coyotes. Perimeter fencing should be installed with a four to six inch gap from the bottom of the fencing material and knuckled back to form a smooth edge and allow permeability for wildlife. Perimeter fencing should have this gap installed continuously along the bottom of all perimeter fencing (i.e., permeable portals should not be utilized).

Lake and Streambed Alteration: The MND identifies Le Grand Canal bordering the eastern edge of the Project site and the Fairfield Canal within 0.2 miles west of the Project site. The MND only provides ITP MM BIO-41 to ensure that soil piles are placed in a manner to not impact nearby "Waters of the State." CDFW concurs with this measure and recommends that the Project proponent consult with CDFW and notify prior to impacting the nearby streams. Project activities that will substantially change or use any material from the bed, bank, and channel of any river, stream, or lake are subject to CDFW's regulatory authority pursuant Fish and Game Code section 1600 et seq. Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may (a) substantially divert or obstruct the natural flow of any river, stream, or lake; (b) substantially change or use any material from the bed, bank, or channel of any river, stream, or lake (including the removal of riparian vegetation); (c) deposit or dispose of debris, waste or other materials that could pass into any river, stream, or lake. "Any river, stream, or lake"

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includes those that are ephemeral or intermittent as well as those that are perennial and may include those that are highly modified such as canals and retention basins.

CDFW is required to comply with CEQA prior to issuance of a Final Lake or Streambed Alteration Agreement (LSA); therefore, if the CEQA document approved for the Project does not adequately describe the Project and its impacts to lakes or streams, a subsequent CEQA analysis may be necessary for Final LSA issuance. For information on notification requirements, please refer to CDFW's website (<https://wildlife.ca.gov/Conservation/LSA>) or contact CDFW staff in the Central Region Lake and Streambed Alteration Program at RRR.R4@wildlife.ca.gov.

CNDDDB: Please note that the California Natural Diversity Database (CNDDDB) is populated by records through voluntary submissions of species detections. As a result, species may be present in locations not depicted in the CNDDDB but where there is suitable habitat features capable of supporting species. A lack of an occurrence record in the CNDDDB does not mean a species is not present. To adequately assess any potential Project-related impacts to biological resources, surveys conducted by a qualified biologist during the appropriate survey period(s) using the appropriate protocol survey methodology are warranted to determine whether any special-status species are present at or near the Project site.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database, which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the CNDDDB. The CNDDDB field survey form can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be mailed electronically to the CNDDDB at the following email address: CNDDDB@wildlife.ca.gov. The types of information reported to the CNDDDB can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

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CONCLUSION

CDFW appreciates the opportunity to comment on the MND to assist the County in identifying and mitigating Project impacts on biological resources. Please see the enclosed Mitigation Monitoring and Reporting Program (MMRP) table (Attachment 2) which corresponds with the recommended mitigation measures in this comment letter. If you have any questions, please contact Alya Wakeman-Hill, Senior Environmental Scientist (Specialist), at the address provided on this letterhead, by telephone at (559) 317-7335, or by electronic mail at alya.wakeman-hill@wildlife.ca.gov.

Sincerely,

DocuSigned by:

E9964E60293D40A...

For Julie A. Vance
Regional Manager

Attachment 1 Mitigation Monitoring Report Program

ec: State Clearinghouse
Land Use and Climate Innovation
state.clearinghouse@lci.ca.gov

Alya Wakeman-Hill
California Department of Fish and Wildlife

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REFERENCES

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Keeley, J. E., & Zedler, P. H. (1998). Evolution of life histories in vernal pools. In C. W. Witham, E. T. Bauder, D. Belk, W. R. Ferren Jr., & R. Ornduff (Eds.), *Ecology, conservation, and management of vernal pool ecosystems* (pp. 1-25). California Native Plant Society.

U. S. Fish and Wildlife Service 2005. Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. Sacramento, California, USA

Attachment 1



Attachment A

Mitigation Monitoring and Reporting Program

Mitigation Monitoring and Reporting Program (MMRP)

CDFW provides the following language to be incorporated into the MMRP for the Project.

Biological Resources (BIO)		
Mitigation Measure (MM) Description	Implementation Schedule	Status/Date /Initials
Western burrowing owl (BUOW)		
Recommended Mitigation Measure 1: BUOW Avoidance Buffer	Before Disturbing Soil or Vegetation	
Recommended Mitigation Measure 2: BUOW Take Authorization	Before Disturbing Soil or Vegetation and During Construction	
Crotch's Bumble Bee (CBB)		
Recommended Mitigation Measure 3: CBB Habitat Assessment	Before Disturbing Soil or Vegetation	
Recommended Mitigation Measure 4: CBB Surveys	Before Disturbing Soil or Vegetation	
Recommended Mitigation Measure 5: CBB Avoidance	During Construction	
Recommended Mitigation Measure 6: CBB Take Authorization	Before Disturbing Soil or Vegetation and During Construction	
Western Spadefoot (WESP)		
Recommended Mitigation Measure 7: Preconstruction Survey for WESP	Before Disturbing Soil or Vegetation	
Recommended Mitigation Measure 8: WESP Avoidance Buffer	During Construction	
American Badger (AMBA)		
Recommended Mitigation Measure 9: AMBA Surveys	Before Disturbing Soil or Vegetation	
Recommended Mitigation Measure 10: AMBA Avoidance	During Construction	