

APPENDIX P

Mitigation Measures for the Campo Wind Project

	Mitigation Measure	Impact
	Biological Resources	
MM-BIO-1	General Avoidance and Minimization Measures. (a) Project Biologist(s). A Project biologist(s) approved by the U.S. Fish and Wildlife Service (USFWS) and the Campo Band of Diegueño Mission Indians (Tribe) shall be designated by the Developer. The Campo Environmental Protection Agency is	Impact BIO-1 Impact BIO-2 Impact BIO-3 Impact PH&S-5
	recommended to oversee the duties of the Project biologist for all work conducted on the Reservation. The Developer shall submit the names, documented experience, any relevant permit numbers, and resumes for the Project biologist(s) to USFWS and the Tribe for approval prior to initiation of construction. The Project biologist(s) shall be responsible for the following: • Providing training to all construction workers (may take the form of any documentable training platform).	impact ride 5
	 Reviewing and/or designating the construction area in the field with the construction contractor in accordance with the final grading plan prior to clearing, grubbing, or grading. 	
	 Conducting a field review of the staking to be set by the professional surveyor, designating the limits of construction activity prior to clearing, grubbing, or grading. 	
	 Flushing wildlife species (i.e., reptiles, mammals, avian, or other mobile species) from occupied habitat areas immediately prior to (i.e., within 2 hours) brush-clearing and earthmoving activities. This does not include disturbance of nesting birds (see MM-BIO-4) or "flushing" of federally listed species (e.g., Quino checkerspot butterfly (see MM-BIO-3)). 	
	 Regularly monitoring construction activities to verify that construction is proceeding in compliance with all permit requirements specific to biological resources. 	
	 Overseeing the construction site so that cover and/or escape routes for wildlife from excavated areas are provided on a daily basis. All steep trenches, holes, and excavations during construction shall be covered at night with backfill, plywood, metal plates, or other means, and the edges covered with soils and plastic sheeting such that small wildlife cannot access them, and/or excavations shall provide an earthen ramp or boards to allow for a wildlife escape route at the ends and every 30 feet. 	
	 Maintaining communication with the appropriate personnel (construction Project manager, resident engineer) so that issues relating to biological resources are appropriately and lawfully managed. 	
	 Verifying that grading plans include a stormwater pollution prevention plan. Reporting any noncompliance issues to the Bureau of Indian Affairs, the resident engineer, and the Tribe. 	
	(b) Environmental Training Program. A worker environmental awareness program shall be developed and implemented prior to the start of construction. The Project biologist(s) shall use this program to conduct environmental training for construction personnel. All construction site personnel shall be required to attend the environmental training in conjunction with hazard and safety training prior to working on site.	



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(c) SWPPP. The stormwater pollution prevention plan (SWPPP) or equivalent shall include, at a minimum, the best management practices listed below. The combined implementation of these requirements shall protect adjacent habitats and special-status species during construction to the maximum extent practicable. At a minimum, the following measures and/or restrictions shall be incorporated into the SWPPP and noted on construction plans, where appropriate, to avoid impacts to special-status species, special-status vegetation communities, and/or jurisdictional waters during construction. The measures described in the SWPPP would be subject to enforcement by the Campo Environmental Protection Agency on the Reservation, and the County of San Diego for the Boulder Brush Facilities.	
The Project biologist(s) shall verify the implementation of the following design requirements:	
 No planting or seeding of invasive plant species (per the most recent version of the California Invasive Plant Council's California Invasive Plant Inventory for the Project region) shall be permitted. Construction activity shall not be permitted in jurisdictional waters of the United States except as authorized by applicable law and permit(s), including permits and authorizations approved by the U.S. Army Corps of Engineers. Silt settling basins installed during the construction process shall be located away from areas of ponded or flowing water to prevent discolored, silt-bearing water from reaching areas of ponded or flowing water during normal flow regimes. Temporary structures, staging, and storage areas for construction equipment and/or materials shall not be located in jurisdictional waters, including wetlands and riparian areas. Any equipment or vehicles driven and/or operated within jurisdictional waters of the United States shall be checked and maintained by the operator daily to prevent leaks of oil or other petroleum products that could be deleterious to aquatic life if introduced to the watercourse. No stationary equipment, such as motors, pumps, generators, and welders, or fuel storage tanks shall be located within 200 feet of jurisdictional waters of the United States. No debris, bark, slash sawdust, rubbish, cement, concrete, oil, or petroleum products shall be stored where it may be washed by rainfall or runoff into jurisdictional waters of the United States. When construction operations are completed, any excess materials or debris shall be removed from the work area. No equipment maintenance shall be performed within 200 feet of jurisdictional waters of the United States where petroleum products or other pollutants from the equipment may enter these areas. Fully covered trash receptacles that are animal-proof and weather-proof shall be installed and used by the construction contractor(s) to contain all fo	
construction sites on a daily basis. (d)Fugitive Dust Control. The Developer or its designee shall implement the fugitive dust control measures outlined in project design	
features PDF-AQ-2 and PDF-AQ-3 (Fugitive Dust Control) of the Final EIS.	



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	(e) Revegetation. Disturbed areas that are not required to be clear for operations and maintenance activities (i.e., temporarily disturbed areas) shall be revegetated or stabilized using soil binders within 90 days of construction completion. If soil binders are used they shall be as efficient, or more efficient, for fugitive dust control than California Air Resources Board-approved soil stabilizers. Soil would be revegetated with native plant species found within adjacent habitats. Locally available seed will be used, and that seed from species that are unavailable for collection would not be incorporated into the final seed palette. Revegetation of temporarily disturbed areas shall provide a minimum of 40% cover of plant species native to adjacent habitats within a 2-year time frame. If 40% cover of native species is not achieved within 2 years, adaptive management measures (e.g. supplemental seeding, erosion control, pest control) will be pursued until 40% cover of native species is achieved.	
	Prior to decommissioning of Campo Wind Facilities, a decommissioning plan would be prepared and implemented. The decommissioning plan shall include revegetation of the previously disturbed areas. Soil would be revegetated with native plant species found within adjacent habitats. Locally available seed would be used, and seed from species that are unavailable for collection would not be incorporated into the final seed palette. Revegetation of disturbed areas shall provide a minimum of 40% cover of plant species native to adjacent habitats within 2 years of construction completion. If 40% cover of native species is not achieved within 2 years, adaptive management measures will be pursued until 40% cover of native species is achieved.	
	(f) Erosion and Runoff Control. During construction, material stockpiles shall be placed such that they cause minimal interference with on-site drainage patterns. This will protect jurisdictional resources from being inundated with sediment-laden runoff. Design of drainage facilities shall incorporate long-term control of pollutants and stormwater flow to minimize pollution and hydrologic changes.	
	(g)Weed Management. A weed management plan shall be developed and approved by the Tribe prior to commencement of construction activities on the Reservation. The plan shall include the following:	
	 Weed inventory and risk assessment Identification of problem areas and necessary preventive measures Annual surveys within the restoration areas to document weed patches for 2 years post construction Success standards, such as no more than a 10% increase in weed species in restoration areas Adaptive management measures Reporting 	
	All herbicide application shall be in compliance with applicable laws and regulations under the prescription of a Pest Control Adviser and implemented by a licensed applicator.	
	(h) Fire Protection. To minimize the potential exposure of the Project to fire hazards, a Boulder Brush Fire Protection Plan (FPP) shall be prepared and a Fire Protection Plan for the Campo Wind Facilities shall be prepared to the satisfaction of CRFPD. The FPPs shall be implemented in conjunction with development of the Project.	
MM-BIO-2	Jurisdictional Waters and Wetlands Compensation. Temporary and permanent impacts to jurisdictional waters and wetlands shall be mitigated per the Project's federal Clean Water Act permit conditions. Temporary impacts shall be restored in place to pre-activity functions; permanent impacts shall be mitigated through a U.S. Army Corps of Engineers-approved mitigation bank and/or in-lieu fee	Impact BIO-1 Impact BIO-2



	Mitigation Measure	Impact
	program. Either of these mitigation options would result in no net loss of jurisdictional aquatic resources. A functional assessment, such as the California Rapid Assessment Method, of the jurisdictional areas proposed to be impacted and preserved at the mitigation site shall be conducted. The purpose of the functional assessment is to evaluate the existing functions and services within the jurisdictional drainages and ensure that the functions and values of the jurisdictional areas lost are replaced at the mitigation site. The precise mitigation ratio shall depend on the functions and values of the mitigation site and any restoration activities that may be conducted to further increase the functions and values of the mitigation site. Refer to MM-BIO-1 for success criteria for revegetation areas.	
MM-BIO-3	Implementation of USFWS-Issued Terms and Conditions. All terms and conditions developed as part of the Section 7 consultation process with the U.S. Fish and Wildlife Service (USFWS) and provided in the Project's Biological Opinion shall be implemented. Terms and conditions shall apply to any ESA-listed species that may be impacted by the Project. Ratios for habitat-based mitigation (if any) shall be determined during the Section 7 consultation process. The mitigation shall focus on habitat preservation and creation for long-term conservation of metapopulation dynamics. Per coordination with USFWS, seasonal avoidance of mapped suitable Quino checkerspot butterfly habitat during Project construction would not be required. Terms and conditions outlined in the Project's Biological Opinion shall take precedence over the measure outlined herein. The measure described below would be subject to enforcement by the Campo Environmental Protection Agency on the Reservation, and by the County of San Diego for the Boulder Brush Facilities. The Project's Biological Opinion will be issued to the BIA and the BIA will be responsible for implementing the terms and conditions of the Biological Opinion.	Impact BIO-1 Impact BIO-3
	(a) Construction Flagging and Signage. Construction flagging and/or signage will be installed when construction of the Project occurs immediately adjacent to mapped occupied Quino checkerspot butterfly habitat (i.e., within a 200-meter radius around host plant concentrations or Quino checkerspot butterfly detections that are located within 1 kilometer of a mapped Quino checkerspot butterfly location) to prevent unnecessary intrusion into occupied Quino checkerspot butterfly habitat. Signage shall be installed where construction activity high-use areas border suitable Quino checkerspot butterfly habitat to prevent intrusion into sensitive habitat and remind personnel of restrictions regarding activities within these areas.	
MM-BIO-4	Avian-Specific Avoidance, Minimization, and Mitigation Measures. (a) Vegetation Clearing Seasonal Avoidance/Nest Clearance Surveys. Vegetation clearing will take place outside of the general avian breeding season (February 15 through August 15) when practicable. If not practicable to conduct vegetation clearing outside the general avian breeding season, it is recommended that a Project biologist with a minimum of 3 years' experience conducting migratory bird surveys conduct a nest-clearance survey within 500 feet (152 meters) of a vegetation clearance area no more than 5 days prior to vegetation clearing. Vegetation clearing crews shall coordinate with the Project biologist prior to the start of construction to verify that the area has been adequately surveyed. If no active nests are discovered, vegetation clearing may proceed. If an active nest is discovered, the nest and an avoidance buffer (at least 300 feet (91 meters) for passerines and at least 500 feet (152 meters) for raptors) shall be flagged or otherwise marked for avoidance. The Project biologist shall monitor any active nest discovered on at least a weekly basis to track the status of each nest. Vegetation clearing shall not take place within the avoidance buffer until nesting is complete (i.e., nestlings have fledged or nest has failed), as determined by the Project biologist. If clearing in a given area ceases for five or more consecutive days during the nesting season, repeat nest clearance surveys will be conducted to verify that new nesting locations have not been established.	Impact BIO-1 Impact BIO-3



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(b) Construction Seasonal Avoidance/Pre-Construction Surveys. Construction (non-vegetation-clearing activities; see MM-BIO-3(a) for vegetation clearing restrictions) that cannot occur outside the general avian breeding season (February 15 through August 15) shall proceed under the following recommended protocols. If nest clearance surveys (see MM-BIO-3(a)) have not been conducted within 5 days of the start of construction, the Project biologist shall conduct a pre-construction nest survey within 500 feet (152 meters) of the construction area no more than 5 days prior to the start of construction in a given area of the construction footprint. Construction crews shall coordinate with the Project biologist prior to the start of construction to verify that the area has been adequately surveyed. If no active nests are discovered, construction may proceed. If an active nest is discovered, the nest and an avoidance buffer (at least 300 feet (91 meters) for passerines and at least 500 feet (152 meters) for raptors) shall be flagged or otherwise marked prior to the start of construction. The Project biologist shall coordinate with construction crews to determine the types of construction activities that may take place within the avoidance buffer. The following shall be taken into consideration when determining whether a construction activity may take place within the avoidance buffer: (1) location of nest; (2) status of nesting; (3) species-specific sensitivity to potential disturbances associated with an activity; (4) type, duration, and timing of construction activity; (5) existing level of disturbances; and (6) influence of other environmental factors on potential disturbances. The Project biologist shall be responsible for monitoring any active nests discovered on at least a weekly basis to track the status of each nest. Should the Project biologist determine that construction activities may disturb the nesting activity, then construction activities shall cease within the avoidance buffer until nesting is complete.	
(c) Bird and Bat Conservation Strategy. The Developer shall prepare a Bird and Bat Conservation Strategy (BBCS). The BBCS shall be prepared by a qualified biologist and shall include methods and results of avian and bat surveys conducted in 2017, 2018, and 2019 at the Project Site; a risk assessment associated with potential collisions/barotrauma with Project turbines and meteorological towers and electrocution associated with overhead transmission lines; recommended avoidance, minimization, and mitigation measures to address this risk; methods and protocols associated with post-construction monitoring; and adaptive management actions that can be taken based on monitoring results. The BBCS shall be submitted to USFWS for review. The BBCS may include the following:	
• Implementation of a Post-Construction Monitoring Program. A Post-Construction Monitoring Program shall provide a means of methodically recording and collecting information on dead or injured birds and bats within the Project Site by professional biologists. This monitoring program will include standardized survey methods, observer trials, and carcass removal trials to assist in determining accurate collision estimates for the Project. These rates will allow for comparison to other projects and assist in determining what, if any, adaptive management activities should be implemented. This monitoring program will occur for a minimum of 2 years and be initiated after completion of Project construction.	
 Implementation of a Worker Response Reporting System (WRRS). The WRRS shall provide a means of recording and collecting information on incidental discoveries of dead or injured birds and bats within the Project Site by site personnel. The WRRS shall be used by site personnel who discover bird and bat carcasses during construction and routine maintenance activities. Site personnel shall be provided a set of standardized instructions to follow in response to wildlife incidents in the Project area. Notification and Implementation Activities. In accordance with the WRRS, during construction, site personnel shall notify the Project biologist to collect the following data on the incidentally detected avian and bat wildlife: species, date, time, location (e.g., 	



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	nearest Project structure), and how the animal died, if known. Results shall be reported to the Tribe and the Developer on a quarterly basis unless federally listed species are involved. During operations, a procedure shall be developed for site personnel to collect the same data, take photographs, and notify the Project's environmental manager, who shall then notify the Tribe and the Developer unless listed species are involved, in which case USFWS shall be notified within 48 hours. In the event of an injury to federally protected species, the USFWS shall be contacted immediately for instruction on how to handle the situation. Workers shall be trained on the WRRS during Worker Environmental Awareness Program training. The WRRS shall be used for the life of the Project. To accommodate these requirements, a Project biologist shall be on retainer throughout the construction period, and one shall be available during the life of the Project to assist in avian and bat identifications, data collection, determination of cause of death or injury, and implementing the WRRS.	
	(d)Removal of Carcasses. All large animal carcasses (e.g., any domestic livestock, feral animal, or big game) incidentally found within the Project Site during operation and maintenance activities shall be removed from the site to prevent attraction of carrion-consuming birds of prey.	
	(e) APLIC Standards. The Project shall implement 2006 and 2012 recommendations by the Avian Power Line Interaction Committee (APLIC) to protect raptors and other birds from electrocution. When properly designed and implemented, these measures can be sufficient to protect even the largest birds that may perch or roost on transmission lines or towers from electrocution. Specifically, these measures will include design specifications regarding proper pole and crossmember dimensions, phasing, and insulator design and dimensions to preclude wire-to-wire contact with a goal of providing appropriate separation between energized conductors and energized hardware and ground wire. In addition, bird diverters or other means to make lines more visible to birds will be installed where appropriate to help avoid collisions.	
	Visual Resources	
MM-VIS-1	Temporary Screening. If visible from nearby roads, residences, public gathering areas, recreational areas, or trails, stationary construction sites and staging areas and temporary staging areas shall be visually screened (to the extent feasible) using temporary screening fencing. Temporary screening fencing shall be of an appropriate design and color intended to compliment the surrounding area. Where practical, construction staging shall be screened with opaque fencing.	Impact VIS-1 Impact VIS-2
MM-VIS-2	Activity Limit/Signposting Guidelines. No paint or permanent discoloring agents shall be applied to rocks or vegetation to indicate survey or construction activity limits.	Impact VIS-1 Impact VIS-2
MM-VIS-3	Minimization of Views of Graded Terrain. Permanent access or spur roads shall be constructed at appropriate angles from the originating primary travel facilities to minimize extended in-line views of newly graded terrain, when feasible. Contour grading should be used where feasible to better blend graded surfaces with existing terrain.	Impact VIS-1 Impact VIS-2
MM-VIS-4	Revegetation of Disturbed Areas. All graded roads and areas not required for ongoing operation, maintenance, or access shall be revegetated and/or returned to preconstruction conditions, as feasible.	Impact VIS-1 Impact VIS-2
MM-VIS-5	Minimization of Vegetation and Topsoil Removal. To the extent feasible and wherever the limits of grading areas are adjacent to sensitive vegetation communities or other biological resources, the minimum amount of vegetation necessary for construction of structures and facilities shall be removed.	Impact VIS-1 Impact VIS-2



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MM-VIS-6	Color Mitigation . Substation components and fencing shall be painted Shadow Gray (or a similar dark gray color) from the BLM Standard Environmental Colors Chart CC-00 or equivalent. Color mitigation would not be required on facilities that are treated in accordance with safety and engineering concerns.	Impact VIS-1 Impact VIS-2
MM-VIS-7	Conductor Design Requirements. All new transmission line conductors are to be non-specular in design to reduce conductor visibility and visual contrast.	Impact VIS-1 Impact VIS-2
MM-VIS-8	FAA-Approved Lighting. The Developer would implement a lighting plan in accordance with current Federal Aviation Administration (FAA) standards. These lights would have the minimum number of flashes per minute and the briefest flash duration allowable per current FAA standards. The number of wind turbines that would be lit would be minimized to the extent allowable by the FAA.	Impact VIS-4
PDF-AE-1	Shadow Flicker (On-Reservation). The Developer will coordinate with the relevant tribe to assess shadow flicker complaints made within one year from the initial operations date of the Project by the resident of any existing (existing as of the date of Record of Decision approval) On-Reservations receptor located within a distance of 15 x Rotor Diameter (i.e. approximately 6,750 feet) of a Project turbine. This assessment would include possible remedies that the Developer may implement depending upon the level of shadow flicker impacts occurring at the On-Reservations receptor, including financial assistance for the installation of screening vegetation or window coverings. Requests for assistance can be made through a Project hotline to be established by the Developer and published to the Developer's website.	Not Applicable
PDF-AE-2	Shadow Flicker (Off-Reservation). While BIA lacks jurisdiction to impose Project conditions implemented Off-Reservations, the Developer will coordinate with the resident of any existing (existing as of the date of Record of Decision approval) Off-Reservations receptor located within a distance of 15 x Rotor Diameter (i.e. approximately 6,750 feet) of a Project turbine to assess their shadow flicker complaints made within one year from the initial operations date of the Project. This assessment would include possible remedies that the Developer may implement depending upon the level of shadow flicker impacts occurring at the Off-Reservations receptor, including financial assistance for the installation of screening vegetation or window coverings. Requests for assistance can be made through a Project hotline to be established by the Developer and published to the Developer's website.	Not Applicable
	Public Health and Safety	
MM-PH&S-1	Hazardous Materials Management Plan (HMMP). Prior to approval of final construction plans by the Campo Environmental Protection Agency, the Developer and/or contractor(s) will prepare a Hazardous Materials Management Plan (HMMP) for the construction phase of the Project, which would be reviewed and approved by the coordinating agencies. The HMMP would be included as part of all contractor specifications and final construction plans to the satisfaction of the appropriate agency. The HMMP would include the following components:	Impact PH&S-1 Impact PH&S-2 Impact PH&S-3
	 The HMMP would identify all hazardous materials that will be present on any portion of the construction site, including, but not limited to, fuels, solvents, and petroleum products. The HMMP would address storage, use, transport, and disposal of each hazardous material anticipated to be used at the site. The HMMP would establish inspection procedures, storage requirements, storage quantity limits, inventory control, nonhazardous product substitutes, and disposition of excess materials. The HMMP would identify secondary containment and spill prevention countermeasures, as well as a contingency HMMP to identify potential spill hazards, how to prevent their occurrence, and responses for different quantities of spills that may occur. Secondary containment and countermeasures would be in place throughout construction so that if any leaks or spills occur, response would be 	



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	 immediate. Emergency spill supplies and equipment would be clearly marked and located adjacent to all areas of work and in construction staging areas. The HMMP would identify adequate safety and fire-suppression devices for construction-related activities involving toxic, flammable, or explosive materials (including refueling construction vehicles and equipment). Such devices would be readily accessible on the Project Site, as specified by the Campo Reservation Fire Protection District and per the Uniform Building Code and Uniform Fire Code. Prior to construction, the Developer/all contractor and subcontractor personnel would receive training regarding the components of the HMMP, as well as applicable environmental laws and regulations related to hazardous materials handling, storage, and spill prevention and response measures. The Developer or Developer's contractor would designate a qualified environmental field representative who would be on-site to observe, enforce, and document adherence to the plan for all construction activities. The HMMP would be submitted to the appropriate agencies for approval prior to construction. 	
MM-PH&S-2	Health and Safety Program. Prior to approval of final construction plans, the Developer or Developer's contractor(s) will prepare a Health and Safety Program (HSP) for each phase of the Project (i.e., construction, operation, and decommissioning). The HSP would be developed to protect both workers and the general public during all phases of the Project and would be implemented to educate construction workers about the hazards associated with the particular Project Site and the safety measures that must be taken to prevent injury. The HSP would include standards regarding occupational safety, safe work practices for each task, hazard training requirements for workers, and mechanisms for documentation and reporting. Regarding occupational health and safety, the HSP would identify all applicable federal and Tribal occupational safety standards; establish safe work practices for each task (e.g., requirements for personal protective equipment and safety harnesses; follow OSHA standard practices for safe use of explosives and blasting agents; identify measures for reducing occupational electromagnetic field exposures); establish fire safety evacuation procedures; and define safety performance standards. The HSP would include a training program to identify hazard training requirements for workers and establish procedures for providing required training to all workers. The HSP would include worker training regarding how to identify potentially contaminated soils and/or groundwater. Documentation of	Impact PH&S-1 Impact PH&S-2 Impact PH&S-3 Impact PH&S-4 Impact PH&S-5 Impact PH&S-8
MM-PH&S-3	training and a mechanism for reporting serious accidents to appropriate agencies would be established. The HSP would identify requirements for temporary fencing around staging areas, storage yards, and excavation areas during construction or decommissioning activities. Such fencing would be designed to restrict transient traffic, off-highway vehicle use, and the general public from accessing areas under construction and would be removed once construction or decommissioning activities are complete. The HSP would also identify appropriate measures to be taken during operation of the Project to limit public access to hazardous facilities (e.g., permanent fencing, locked access). Safety Assessment. Prior to commencing construction activities, it is recommended that the Developer or Developer's contractor(s)	Impact PH&S-4
	prepare a safety assessment to describe potential safety issues associated with the Project, how safety prevention measures would be implemented, where medical aid kits would be located, the appropriate response action for each safety hazard, and procedures for notifying the appropriate authorities and agencies involved. The safety assessment would address issues such as site access/hazards, construction hazards, safe work practices, security, heavy equipment transportation, traffic management, emergency procedures, and fire control.	



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MM-PH&S-4	Wind Turbine Safety Zone and Setbacks. Prior to approval of final construction plans and as part of the Health and Safety Program (MM-PH&S-2), it is recommended that the Developer demonstrate to the Tribe adequate setbacks for wind turbine generators from residents and occupied buildings, roads, right-of-ways, transmission lines, and other public access areas, consistent with the Campo Lease. Plans detailing the proposed turbine setbacks would be submitted to the Tribe for review and approval prior to construction. Project turbine locations will be included in the Resource Development Plan to be prepared pursuant to 25 CFR, Section 162.563(h).	Impact PH&S-5 Impact PH&S-8 Impact PH&S-9
	Cultural Resources	
MM-CUL-1	Monitoring and Treatment Plan. A post-environmental review cultural resources monitoring and discoveries treatment plan (Monitoring and Treatment Plan) will be prepared prior to the start of construction and shall outline the specific requirements for monitoring at the conclusion of stakeholder consultation. The Monitoring and Treatment Plan shall clearly identify roles and responsibilities of Project personnel, and lines of communication and authority for reporting and management. The Monitoring and Treatment Plan shall include the procedures to be followed when construction results in an inadvertent discovery including work stoppage, protection of the discovery to allow for inspection by a qualified archaeologist, significance evaluation if the resource is not an isolated find, coordination with the Bureau of Indian Affairs (BIA) and developer to attempt avoidance of further effects if the resource is found to be significant, and the procedures for data recovery mitigation if a voidance is not feasible. The Monitoring and Treatment Plan shall be prepared by the developer's Secretary of the Interior-qualified archaeologist and submitted to the BIA for review and approval prior to the start of construction.	Impact CUL-2
MM-CUL-2	Archaeological and Native American Monitoring. It is anticipated that monitoring will be required for all primary ground disturbance and for extended excavations when construction encroaches on historic properties that are avoided but are near to ground-disturbing activities, and at those locations where sensitive remains or significant deposits are more likely to be unearthed during construction-related ground disturbance.	Impact CUL-2
	Ground-disturbing activities include, but are not limited to, brush clearance, grubbing, excavation, trenching, grading, and drilling. Any archaeological monitors shall be qualified archaeologists or work under the direct supervision of a qualified archaeologist, defined as an archaeologist meeting the Secretary of the Interior's standards for professional archaeology, and shall be approved by the Bureau of Indian Affairs (BIA). The monitors shall be familiar with the types of historical and prehistoric resources that could be encountered on the Project Site.	
	The archaeological monitors shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis. The archaeological monitors shall be present on the Project Site according to a schedule as detailed in the Monitoring and Treatment Plan and shall maintain a daily log of activities, which will be appended to a final monitoring report that shall be submitted to the BIA and South Coastal Information Center at the conclusion of monitoring. Specific monitoring reporting procedures shall be detailed in the Monitoring and Treatment Plan.	
	In the event of inadvertent discovery of human remains, all work shall immediately be halted within a 100-foot radius and temporary protective measures shall be implemented. The developer shall immediately contact the Tribe, and follow the Native American Graves Protection and Repatriation Act (NAGPRA) plan of action provided in the Monitoring and Treatment Plan. The NAGPRA plan of action will minimally include coordination with the San Diego County Coroner (Coroner) for formal determination of the remains. If the Coroner determines that the remains are Native American, the Coroner shall contact the Native American Heritage Commission, in accordance	



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	with California Health and Safety Code, Section 7050.5c, and California Public Resources Code, Section 5097.98 (as amended by Assembly Bill 2641). The Native American Heritage Commission shall coordinate with the Tribe to identify a Most Likely Descendant for the remains per California Public Resources Code, Section 5097.98, unless the Tribe has already made such a determination. If the remains are determined to be neither of forensic value to the Coroner, nor of Native American origin, provisions of the California Health and Safety Code (7100 et seq.) directing identification of the next of kin will apply.	
MM-CUL-3	Significance Evaluation and Data Recovery. Requirements for treatment of inadvertent discoveries that occur during construction, operation and maintenance, and decommissioning, shall be detailed in the Monitoring and Treatment Plan (MM-CUL-1), and shall minimally include stoppage of all activity within 100 feet of the find until a qualified archaeologist can assess the significance of the find. The Bureau of Indian Affairs (BIA) shall also be contacted. If the qualified archaeologist in consultation with the BIA, determines the resource is significant (i.e., qualifies as a historic property), then the archaeologist shall determine appropriate avoidance measures or other appropriate mitigation. Preservation in place shall be the preferred manner of mitigation to avoid effects on significant cultural resources. If it is demonstrated that resources cannot be feasibly avoided, the qualified archaeologist shall implement the provisions for mitigation detailed in the Monitoring and Treatment Plan. Work shall not resume within 100 feet of the discovery until permission is received from the BIA. Where preservation in place of a significant archaeological resource is not feasible, a qualified archaeologist, in consultation with the BIA, and the Project developer shall complete archaeological data recovery. The standard for completion of data recovery may vary for individual archaeological sites, but is understood herein to be collection of a statistically representative sample of the archaeological deposits such that data redundancy is achieved and the unique properties of the archaeological data recovery plan prior to ground disturbance for the recovery of resources in unavoidable sites that will capture those categories of data for which the site is significant, and implement the data recovery plan. The Monitoring and Treatment Plan (MM-CUL-1) will include a research design and archaeological data recovery plan prior to ground disturbance for the recovery of resources in unavoidable sites that will capture those cat	Impact CUL-2



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	For archaeological sites considered significant and eligible for NRHP listing that can be avoided, reasonable protective measures shall be provided, including protective fencing around an avoided resource with an appropriate buffer, silt fencing to avoid indirect effects through Project-related runoff, and other measures as applicable. In certain instances, avoidance through capping using sterile fill matrix, use of rubber mats, or other measures may be deemed appropriate to achieve avoidance.	
	Noise	
MM-NOI-1	Construction Noise Best Management Practices.	Impact NOI-1
	 Ensure that all construction equipment driven or powered by internal combustion engines is equipped with a factory-approved or recommended muffler. If traffic control and construction signs that require power for lighting or flashing are located near residences, the source of power should be batteries, solar cells, or another quiet source. Where and when construction activity is expected to occur within 200 feet of an Off-Reservation noise-sensitive land use (NSLU), provide the owner/occupant at least one week's advance notice of anticipated construction schedule and activities. Information should include a contact phone number so that noise concerns can be brought to the contractor's attention. Restrict the use of engine exhaust compression braking (a.k.a., "jake braking") on all trucks. 	Impact NOI-4
	 All stationary construction equipment (especially pieces that are expected to operate frequently, or in a continuous or otherwise "steady-state" manner) should be located as far as practicable from NSLUs. 	
	 Vehicles should observe limitations on duration of engine idling, as defined by applicable standards (e.g., air quality regulations and policies). 	
	• For roadway improvements to Ribbonwood Road, which would benefit members of the community that use this roadway, the Project applicant or its contractors shall apply for a variance per Sections 36.423 through 36.427 of the San Diego County Code. This variance, granted after review and approval by the County's designated noise control officer, provides a means for "non-emergency work on a public right-of-way, public utility facility, public transportation facility or some other project for the benefit of the general public" to temporarily deviate from the 75 dBA Leq(8hr) construction noise standard per 36.409 of the County Noise Ordinance.	
	Traffic and Transportation	
MM-TRA-1	Use of Traffic Flagger during PM Peak Hour. The Project shall utilize a trained and qualified traffic flagger for the duration of the peak construction phase of the Project construction at the Project access roads at the end of the day shift (PM peak hour) to stagger outbound Project traffic to minimize delays at the intersection of Crestwood Road/Interstate 8 westbound ramps.	Impact TRA-1
MM-TRA-2	Repair and Restoration of Roads. It is recommended that the Tribe and the BIA Roads Branch perform site inspection before Project start and again after Project completion to ensure that the quality of roadways is not compromised by construction traffic. If damage to roads is found to have resulted from construction activities, it is recommended that the Developer coordinate repairs with the affected Tribal and public agencies to ensure that any impacts to area roads are adequately repaired at the Developer's cost, pursuant to the Campo Lease and all applicable permits. It is recommended that roads disturbed by construction activities or construction vehicles be properly restored to ensure long-term protection of road surfaces. This would include consideration of damage to roadside drainage structures. BIA streets would be repaired, resurfaced, and restriped by the contractor after completion of the Project construction.	Impact TRA-2



	Mitigation Measure	Impact
MM-TRA-3	Traffic Control and Management Plan. Implementation of a traffic control and management plan including following measures is recommended:	Impact TRA-3
	• Temporary traffic control devices in accordance with the California Department of Transportation (Caltrans) California Manual on Uniform Traffic Control Devices to identify locations/sections where construction is ongoing. This may include slow-moving-vehicle warning signs, signage to warn of merging trucks, barriers for separating construction and non-construction traffic, use of traffic control flagmen, and any additional measures required for the sole convenience of safely passing non-construction traffic through and around construction areas.	
	• Coordination with Caltrans in order to secure the necessary encroachment and trip permits necessary for specialized haul trucks. Also, any excessive height/length vehicles should use pilot car services to provide safe over-the-road operations and overhead height warnings, if necessary.	
	 Coordination with Caltrans and California Highway Patrol (CHP) in order to secure necessary encroachment permit for overnight highway closure along I-8 to string the gen-tie line across the freeway. 	
	 Notification of California Highway Patrol in order to facilitate slowing freeway traffic to ensure safe access for motorists. Coordination with Caltrans, CHP, and County officials, including the Sheriff's Department. 	
	• Employment of a contract transport company that would be responsible for surveying the route to determine how turns on existing roads would be accomplished, and ensuring that this is reflected in the traffic control and management plan.	
	 Establishment of procedures for coordinating with local emergency response agencies to ensure dissemination of information regarding emergency response vehicle routes affected by construction activities. 	
	Encouragement of carpooling among workers to reduce worker commute trips entering and exiting the study area.	
	Air Quality	_
PDF-AQ-1	Prior to the Tribe's approval of any construction-related permits, the Developer or its designee shall place the following requirements on all plans, which shall be implemented during each construction phase to minimize VOC, CO, and NOx emissions:	Not Applicable
	a. Prior to the commencement of any construction activities, the lessee or its designee shall provide evidence to the Tribe that for off-road equipment with engines rated at 75 horsepower or greater, no construction equipment shall be used that is less than Tier 4 Final. An exemption from these requirements may be granted by the Tribe in the event that the Developer documents that equipment with the required tier is not reasonably available and corresponding reductions in criteria air pollutant emissions are achieved from other construction equipment. Before an exemption may be considered by the Tribe, the Developer shall be required to demonstrate that three construction fleet owners/operators in the San Diego region were contacted and that those owners/operators confirmed Tier 4 Final equipment could not be located within the San Diego region.	
	b. Vehicles in loading and unloading queues shall not idle for more than 5 minutes and shall turn their engines off when not in use to reduce vehicle emissions.	
	c. All construction equipment shall be properly tuned and maintained in accordance with manufacturer's specifications.	
	 The use of electrical or natural gas-powered construction equipment shall be employed where feasible, including forklifts and other comparable equipment types. 	



	Mitigation Measure	Impact
PDF-AQ-2	Fugitive Dust Control. The Developer or its designee shall implement the following measures to minimize fugitive dust (PM10 and PM2.5):	Not Applicable
	 a. Water or other approved dust control non-toxic agent shall be used on the grading areas at least three times daily. b. Grading areas shall be stabilized as quickly as possible. c. Chemical stabilizer shall be applied, a gravel pad shall be installed, or the last 100 feet of internal travel path within the construction site shall be paved prior to public road entry and for all haul roads. d. Wheel washers shall be installed adjacent to the apron for tire inspection and washing prior to vehicle entry on public roads. e. Visible track-out into traveled public streets shall be removed with the use of sweepers, water trucks, or similar method within 30 minutes of occurrence. f. Sufficient perimeter erosion control shall be provided to prevent washout of silty material onto public roads. g. Unpaved construction site egress points shall be graveled to prevent track-out. h. Construction access points shall be wet-washed at the end of the workday if any vehicle travel on unpaved surfaces has occurred. i. Transported material in haul trucks shall be watered or treated. j. All soil disturbance and travel on unpaved surfaces shall be suspended if winds exceed 25 miles per hour. k. On-site stockpiles of excavated material shall be covered. l. A 15 mile per hour speed limit on unpaved surfaces shall be enforced. m. Construction traffic control plans shall route delivery and haul trucks required during construction away from sensitive receptor locations and congested intersections to the extent feasible. Construction Traffic Control plans shall be finalized and approved prior to issuance of grading permits. 	
	 n. Construction Traffic Control Plans shall route delivery and haul trucks required during construction away from sensitive receptor locations and congested intersections to the extent feasible. Construction Traffic Control Plans shall be finalized and approved prior to issuance of grading permits. 	
PDF-AQ-3	The following measures shall be included as part of the Project to reduce emissions associated with blasting and rock-crushing activities:	Not Applicable
	a. During blasting activities, the construction contractor shall implement measures to control fugitive dust, including exhaust ventilation, blasting cabinets and enclosures, vacuum blasters, drapes, water curtains, or wet blasting. Watering methods, such as water sprays and water applications, shall be implemented during blasting, rock crushing, cutting, chipping, sawing, or any activity that would release dust particles to reduce fugitive dust emissions.	
	b. During rock crushing transfer and conveyance activities, material shall be watered prior to entering the crusher. Crushing activities shall not exceed an opacity limit of 20% (or Number 1 on the Ringelmann Chart) as averaged over a 3-minute period in any period of 60 consecutive minutes. A qualified opacity observer shall monitor opacity from crushing activities once every 30 days while crushers are employed on site. Water sprayers, conveyor belt enclosures, or other mechanisms shall be employed to reduce fugitive dust generated during transfer and conveyance of crush material.	



	Mitigation Measure	Impact
PDF-AQ-4	All Project phases involving blasting shall conform to the following requirements:	Not Applicable
	 Each blasting event shall employ approximately 1.2 tons of ammonium nitrate/fuel oil (ANFO). Blasting activities shall be restricted to not more than two blasts per day. All blasting shall be performed by a blast contractor and blasting personnel licensed to operate in the County. 	
PDF-AQ-5	Construction Architectural Coating Limits. The Project shall comply with the following volatile organic compound (VOC) content limits for architectural coatings during construction for residential and non-residential and uses: 50 grams per liter VOC for interior surfaces and 100 grams per liter VOC for exterior coatings.	Not Applicable
	Water Resources	
PDF-HYD-1	Groundwater Monitoring: Campo Environmental Protection Agency (CEPA) will monitor the depth to groundwater in wells located between existing On-Reservation production wells anticipated to be a source of groundwater supply for Project construction and other nearby On-Reservation production wells. A groundwater level drawdown threshold for On-Reservation monitoring wells should be established to ensure that declines in groundwater levels in On-Reservation wells remain at less than 20 feet resultant from On-Reservation pumping for Project construction. Groundwater level monitoring should be conducted at least weekly during Project construction and do not interfere with individual and Public Water System (PWS) wells that provide drinking water to residents and others. Should the groundwater drawdown threshold be exceeded, CEPA will require the cessation of on-site pumping for Project construction, from such production wells as is necessary, until groundwater levels in the monitoring wells rise above the threshold.	Not Applicable
	Construction	
PDF-CON-1	On-site access roads would be staked at the outermost perimeter of 40 feet, to ensure no Project personnel go beyond these boundaries. Stakes would be placed every 200 feet in accordance with industry standards. Additionally, on-site construction workers performing ground-disturbance activities would be equipped with GPS units that would clearly delineate the limits of grading.	Not Applicable
PDF-CON-2	Prior to construction of roadway improvements, the off-site, up to 30-foot roadway improvement boundaries would be marked by stakes every 200 feet in accordance with industry standards, to delineate the extent of allowed grading limits. Additionally, on-site construction workers performing ground-disturbance activities would be equipped with GPS units that would clearly delineate the limits of grading.	Not Applicable
PDF-CON-3	Prior to commencement of construction activities for the Project, the Worker Environmental Awareness Program (WEAP) training for onsite personnel would be submitted for approval to the Campo Environmental Protection Agency (CEPA). CEPA may require additional information to be added to the WEAP training, and must approve the finalized WEAP training prior to its implementation. All construction personnel would be required to attend the WEAP training prior to working on site and monthly updated lists, to include full name, phone number, and position/company of personnel who have received the WEAP training, would be provided to the CEPA. In addition, temporary personnel delivering equipment and supplies to the site would be aware of the requirements and required to comply with the WEAP training, including, but not limited to, speed limit, stopping for wildlife observed in the access road, driving within the approved right-of-way, observing bird buffer signs and not stopping within the buffers, and driving slower than the approved speed limit, should dust occur on the access road.	Not Applicable



	Mitigation Measure	Impact
PDF-CON-4	Stockpiles of soil shall be properly contained to eliminate or reduce sediment transport from the site to on-site access roads, drainage facilities, or adjacent properties via runoff, vehicle tracking, or wind. Stockpiles would be stabilized using temporary cover best management practices to protect stockpiles and prevent erosion and runoff through the application of seeding, soil blankets, mulches, mats, soil binders, positioning of fiber rolls and silt fence around the stockpile, or other cover on bare soil. Additional methods such as applying water or installing wind barriers should also be used to reduce wind erosion. Temporary disturbance areas would be reseeded with native species in accordance with the applicable requirements.	Not Applicable
PDF-CON-5	Blasting operations would be in general conformance with the blasting specifications prepared by the U.S. Bureau of Mines. The blasting contractor would be required to limit the blasting intensities so as to prevent damage to all existing structures, and in no case would intensities exceed the safety standard of particle velocity recommended by the U.S. Bureau of Mines.	Not Applicable



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