

**INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION**

**Mesa Wind Repower Project
Riverside County, California**

Prepared for:

California Department of Fish and Wildlife

Inland Deserts Region

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AB	Assembly Bill
ACEC	Area of Critical Environmental Concern
APE	area of potential effect
APM	Applicant Proposed Measure
ASCE	American Society of Civil Engineers
BBCS	bird and bat conservation strategy
BLM	Bureau of Land Management
BRTR	Biological Resources Technical Report
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Occupational Safety and Health Administration
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CDCA	California Desert Conservation Area
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFC	California Fire Code
CGS	California Geological Survey
CH ₄	methane
CHP	California Highway Patrol
CIWMB	California Integrated Waste Management Board
CMA	Conservation Management Action
CNEL	community noise equivalent level
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CVCC	Coachella Valley Conservation Commission
CVGB	Coachella Valley Groundwater Basin
CVMSHCP	Coachella Valley Multiple Species Habitat Conservation Plan
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DPM	diesel particulate matter

Acronym/Abbreviation	Definition
DRECP	Desert Renewable Energy Conservation Plan
DTSC	Department of Toxic Substances Control
EIS	Environmental Impact Statement
EOP	Emergency Operations Plan
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FCR	field contact representative
FCWCD	Riverside County Flood Control and Water Conservation District
FHSZ	Fire Hazard Severity Zone
FLPMA	Federal Land Policy and Management Act
g	acceleration of gravity
GHG	greenhouse gas
HFC	hydrofluorocarbon
HMBP	hazardous materials business plan
I	Interstate
IBC	International Building Code
IFC	International Fire Code
ITP	Incidental Take Permit
IWMP	Integrated Weed Management Plan
JPR	joint project review
kV	kilovolt
KOP	key observation point
L _{dn}	average day/night sound level
L _{eq}	average sound level
LST	localized significance threshold
LUPA	Land Use Plan Amendment
MBTA	Migratory Bird Treaty Act
met	meteorological
MMT	million metric ton
MSHCP	Multiple Species Habitat Conservation Plan
MT	metric ton
MW	megawatt
MYA	million years ago
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NHPA	National Historic Preservation Act
NO	nitric oxide
NO ₂	nitrogen dioxide
NO _x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRHP	National Register of Historic Places
O&M	operations and maintenance
O ₃	ozone

Acronym/Abbreviation	Definition
pBCCS	programmatic bird and bat conservation strategy
PCT	Pacific Crest Trail
PFC	perfluorocarbon
PFYC	Potential Fossil Yield Classification System
PM _{2.5}	fine particulate matter
PM ₁₀	coarse particulate matter
RCFD	Riverside County Fire Department
RCRA	Resource Conservation and Recovery Act
ROW	right-of-way
RPS	Renewables Portfolio Standard
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCADA	supervisory control and data acquisition
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCEDC	Southern California Earthquake Data Center
SF ₆	sulfur hexafluoride
SGMA	Sustainable Groundwater Management Act
SO ₂	sulfur dioxide
SO _x	sulfur oxides
SPCC	spill prevention, control, and countermeasures
SR	State Route
SRA	Source-Receptor Area
SRMA	Special Recreation Management Area
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCR	tribal cultural resource
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VMT	vehicle miles traveled
VOC	volatile organic compound
WEAP	worker environmental awareness program
WECS	Wind Energy Conversion System
WTG	wind turbine generator

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1 Introduction to the Initial Study/Mitigated Negative Declaration

1.1 Background

Mesa Wind Power Corporation (herein referred to as “Mesa Corp” or “applicant”), a subsidiary of Brookfield Renewable Energy (Brookfield), as owner of the Mesa Wind Repower Project, is proposing to repower the existing wind energy facility. The proposed Mesa Wind Repower Project (project) would be located almost entirely within the existing right-of-way (ROW) on land administered by the Bureau of Land Management (BLM). This would require amending two existing ROW grants (CACA-55718 for the wind turbine generators [WTGs] and ancillary facilities) and CACA-13980 (access roads and transmission).

The existing Mesa Wind energy facility was built in 1983–1984 and consisted of 460 65-kilowatt Vestas V15 WTGs with a mix of 85-foot and 140-foot structures, for a total of 30 megawatts (MW) of output. The existing Mesa Wind project site and facilities were analyzed in the San Geronio Pass Wind Energy Project Draft Environmental Impact Statement (EIS) prepared by BLM (May 1982). After Mesa Corp purchased the existing project in 2013 from the previous owner, approximately 420–430 WTGs were in operation. Because two on-site fire events resulted in safety issues, Mesa Corp refurbished 129 of the existing WTGs while determining what to do about the remaining 331 WTGs and the project as a whole. This refurbishment, which also included a mechanical and electrical equipment overhaul, was completed in 2015. In October 2018, BLM issued an amended ROW grant (CACA-55178) to the applicant for the 30 MW wind facility, including all 460 WTGs, 12-kilovolt (kV) collector lines, on-site access roads, 1,500-square-foot operations and maintenance (O&M) building, and a 15,000-square-foot 115 kV substation. Concurrently, BLM issued an amended ROW grant (CACA-13980) for the main access road and 12 kV transmission line. BLM conducted an environmental review in 2018, and based on the analysis conducted in the previous EIS, it was determined sufficient to cover operation of all 460 WTGs and associated project features; therefore, no additional National Environmental Policy Act environmental analysis was warranted to cover the originally approved 460 WTGs.

As stated above, the 129 WTGs are currently in working order and reliably generate approximately 8 MW. Mesa Corp intends to continue operating the functional Vestas WTGs and selling their electricity either in the real-time market or under short-term contracts until the existing WTGs are decommissioned. The existing 460 legacy nameplate WTGs will be decommissioned by mid-2021 under the existing project permits. The retired units would be removed prior to the repower and are not considered part of the proposed project. The proposed repowering of Mesa Wind would install eight new WTGs with a total power production of 30 MW. The applicant proposes to use Vestas V117-4.2 WTGs.

The existing unnamed access road to the Mesa Wind Repower Project (off Desert View Road), also provides access to the Alta Mesa Wind Project (not part of the proposed project being evaluate in this document). The Alta Mesa Wind Project is located to the southeast/south of the proposed Mesa Wind Repower Project and is proposed by the same applicant. The County of Riverside (County) is the California Environmental Quality Act (CEQA) Lead Agency for the Alta Mesa Wind Project, as the associated project components are located entirely on County land. On December 24, 2020, the County released an Environmental Assessment/Initial Study for public review. The CEQA documents for each project (Mesa Wind Repower Project and the Alta Mesa Wind Project) evaluate the same unnamed access road as an access route to the wind energy facilities. The reason for evaluating the same road in both CEQA documents is because both projects are on similar processing timeframes and it is unknown which will be permitted first by their respective CEQA lead agencies (California Department of Fish and Game [CDFW]

for Mesa Wind or the County for Alta Mesa Wind). Each project, when approved, requires the use of this access road to begin project construction; therefore, a full impact analysis of the access road within the County's jurisdiction has been included in the CEQA documents for both projects.

1.2 Proposed Project Overview

Mesa Corp has recently secured a new long-term power purchase agreement and proposes to repower the existing Mesa Wind energy facility with eight new WTGs with a design capacity of 30 MW – the same as the existing Mesa Wind design capacity. These new WTGs would be on towers approximately 263 feet (80.1 meters) tall. The proposed WTGs would be constructed within the existing project boundaries. The transmission line that ties into the Southern California Edison (SCE) PanAero Substation can accommodate the proposed repower project; therefore, the transmission line would not need to be upgraded. The existing 20-foot-wide access roads would be widened to 40 feet to accommodate transport of the new WTGs and construction equipment. Permanent roads would be 16 feet wide. Portions of the access road widening would be outside the existing ROW grant.

The proposed WTGs, ancillary components, and electrical transmission improvements would be located on BLM-administered lands, although portions of the access road widening in the County would require ground disturbance to adjoining private lands. The area of the project located within the County is also located within the Coachella Valley Multiple Species Habitat Conservation Plan area. Refer to Chapter 2, Project Description, of this Initial Study for additional details regarding the project components, construction, and operations and maintenance activities.

1.3 California Environmental Quality Act Compliance

The Mojave desert tortoise (*Gopherus agassizii*) is listed as threatened under the California Endangered Species Act and is known to occur on the project site. To ensure that the project complies with the California Endangered Species Act, the applicant submitted a 2081 Incidental Take Permit (ITP) application to authorize incidental take of Mojave desert tortoise. The ITP application is currently under review by CDFW.

Pursuant to CEQA statute Section 21067 and CEQA Guidelines Article 4 and Section 15367, CDFW is the lead agency for the proposed project. Because approvals of the ITP application and Lake and Streambed Alteration Agreement are discretionary actions, the project is subject to CEQA review. The project is not subject to local planning ordinances because it would be almost entirely on federal land under the exclusive jurisdiction of BLM. However, because the ITP and Lake and Streambed Alteration Agreement are being considered for the project on lands administered by BLM and a small amount of the primary access road is on private land (approximately 1,160 linear feet), the entire project site is subject to CEQA. The County of Riverside does not have jurisdiction over BLM-administered land, nor do they require a discretionary permit for the road improvements. Therefore, CDFW will act as the lead agency for CEQA review of the proposed Mesa Wind Repower Project.

This Initial Study and its appendices have been prepared in accordance with the CEQA statute and the CEQA Guidelines. Based on the results of the Initial Study, included in Chapter 3 of this document, CDFW will determine the appropriate CEQA document (mitigated negative declaration or environmental impact report) for the proposed project.

The overarching goal of CEQA is to protect the physical environment. To achieve this goal, CEQA requires that public agencies identify the environmental consequences of their discretionary actions and consider mitigation measures, if necessary, that could avoid or reduce significant adverse impacts when avoidance or minimization is not feasible. It also gives the public and other public agencies an opportunity to comment

on the proposed project. If CDFW determines, at any point in the CEQA process, that the appropriate CEQA document is an environmental impact report, then alternatives would also be considered.

During preparation of this Initial Study, Applicant Proposed Measures (APMs) are being considered in the evaluation of environmental impacts pursuant CEQA (refer to Chapter 3, Initial Study). In 2020, BLM prepared an Environmental Assessment for an amendment to the existing ROW grants for the Mesa Wind energy facility; the Environmental Assessment also included APMs. The BLM Environmental Assessment APMs have since been refined as part of the CEQA analysis, as opposed to developing mitigation measures, where applicable. Therefore, all prior Environmental Assessment APMs are superseded by the APMs in this Initial Study. Refer to Section 2.8, Applicant Proposed Measures, for a complete list of the APMs.

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2 Project Description

Mesa Corp (the applicant) proposes to repower an existing wind energy facility located on land administered by the Bureau of Land Management (BLM). Mesa Corp has requested an amendment to the existing BLM right-of-way (ROW) grants for the proposed project, which is undergoing separate environmental review under the National Environmental Policy Act by the BLM.

The applicant proposes to construct the Mesa Wind Repower Project (project), which would include construction, operation and maintenance, and decommissioning of eight new wind turbine generators (WTGs). The project would produce approximately 30 megawatts of wind energy, which is the same as the capacity of the existing Mesa Wind energy facility. The new facilities would be decommissioned at the end of their estimated 30-year useful life (2053). Figure 2-1 illustrates the project location. The existing WTG locations are shown on Figure 2-2, Existing Mesa Wind Energy Facility, and the proposed locations for eight WTGs and one meteorological (met) tower are shown on Figure 2-3, Site Plan.¹

The total overall potential ground disturbance would be 98.0 acres. The 98.0 acres include 18.2 acres of permanent and 79.8 acres of temporary disturbance. The temporary impact area includes 44.7 acres where ground disturbance is anticipated, including grading and vegetation removal associated with road improvements, WTG pads, laydown yard, and cut/fill. It also includes a 35.1-acre buffer area where no vegetation removal is anticipated and minimal ground disturbance may occur from potential drive and crush associated with trucks backing up, or a pickup truck driving outside the graded area. A summary of the estimated ground disturbance is shown in Table 2-1. Table 2-2 provides a comparison of new and existing WTGs.

Table 2-1. Mesa Wind Repower Project Estimated Disturbance

Component	Temporary Disturbance	Permanent Disturbance	Total
	Acres		
WTGs and WTG pads	10.5	8.9	19.4
Fill areas	5		5
Off-site access roads (includes improved areas along steep slopes leading to the wind energy facility ROW)	4.4*	5.1	9.5
On-site access roads (improved roads up to 40 feet within the wind ROW, and minor new roads to reach the WTGs) – these are associated with ROW CACA-055718	11.8	4.2	16.0
Laydown area	13		13
Buffer area (within wind ROW)	16.4		16.4

¹ The proposed project originally included up to 11 WTGs, as described in the BLM Environmental Assessment for the project. Based on public feedback, the applicant revised the layout to remove three WTGs in the eastern portion of the project site, which would be most visible to the nearest community (Bonnie Bell). The numbering of the original WTGs was retained to remain consistent with the BLM Environmental Assessment (BLM 2020).

Table 2-1. Mesa Wind Repower Project Estimated Disturbance

Component	Temporary Disturbance	Permanent Disturbance	Total
	Acres		
Buffer area (associated with off-site access roads)	18.7		18.7
Total disturbance	79.8	18.2	98.0

Notes: ROW = right-of-way; WTG = wind turbine generator.

* 4.2 acres is associated with ROW CACA-013980/unnamed access road, and 0.2 acres is associated with the local street network west of the project site – refer to Figure 2-3 (on-site road) and Figure 2-4 (off-site road).

Table 2-2. Comparison of New WTGs with WTGs to Be Removed from the Project Site

WTG Specifications	New	Removed
Number of WTGs	8	460
Maximum hub height	300.2 feet (91.5 meters)	141.1 feet (43 meters)
Maximum blade and rotor diameter	383.9 feet (117 meters)	49.2 feet (15 meters)
Maximum blade tip height (from top of foundation to blade tip at apex)	492 feet (150 meters)	164.0 feet (50 meters)
Rotor swept area (each)	10,751.3 square meters	176.7 square meters
Rotor swept area (total)	86,010.4 square meters	81,282.0 square meters

Note: WTG = wind turbine generator.

Decommissioning of Existing Wind Turbine Generators

The existing 460 WTGs will be removed from the project site under the existing project permits, and are not evaluated as part of the proposed project being considered by the California Department of Fish and Wildlife (CDFW) as lead agency. The Mesa Wind Project Decommissioning Plan (Decommissioning Plan) outlines the steps taken to decommission the current project on site. The Decommissioning Plan states that decommissioning would be completed in compliance with revised Bureau of Land Management (BLM) wind energy policies (BLM 2008) and best management practices (BMPs) specific to decommissioning. Decommissioning of existing WTGs is anticipated to be completed by mid-2021.

Underground power cables and communication lines to the existing WTGs will be decommissioned in place. Underground cables will be cut off at ground surface. Transformers will be removed from the site for disposal or recycling.

The 35 existing WTG concrete foundations that are in the disturbance footprint of the proposed WTGs will be removed at the same time. For those foundations that were previously determined to support potential desert tortoise (*Gopherus agassizii*) burrows, surveys would be conducted in accordance with U.S. Fish and Wildlife Service (USFWS) protocols (USFWS 2009) prior to removal to ensure that the burrows are vacant. If live desert tortoises or an occupied desert tortoise burrow are identified, foundations will not be removed. Removal of foundations will be determined on a case-by-case basis once the tortoises have left on their

own without any disruption. Live desert tortoise, desert tortoise sign, and burrow excavations will be recorded and reported to BLM, USFWS, and CDFW. For the other existing foundations not within the proposed project disturbance areas, the contractor will break up the foundations 12 inches below the surface and cover the area with native soil.

2.1 Project Location

The project site is located on 401 acres of BLM-administered lands in Riverside County, 11 miles northwest of the City of Palm Springs in Southern California (refer to Figure 2-2). The primary project facilities (WTGs and substation) are located on land administered by the Bureau of Land Management, and a portion (approximately 1,160 feet) of the main access road, and the off-site construction access roads are located within Riverside County. The current energy facility is approved under the BLM ROW number CACA 55718. An unnamed access road and Gold Canyon Access Road, both beginning on the west side of the project site on private lands, provide access to the project facilities (refer to Figure 2-3). The unnamed access road is under a separate BLM ROW grant (CACA-13980) and would be the primary access road during construction. The Gold Canyon Access Road would not be used during construction, however, would continue to be used during operation to access the operation and maintenance (O&M) facility. As shown on Figure 2-3 the majority of Gold Canyon Access Road is outside of the project disturbance area. Where Gold Canyon Access Road is near the WTGs, the disturbance area shown is only associated with the WTGs. The project area is rural, open space that is sparsely populated. Local land uses include existing wind energy facilities, off-highway vehicle trails, and protected space, including an Area of Critical Environmental Concern (ACEC) and areas that have been designated “wilderness.” The Pacific Crest Trail runs north of and adjacent to the west side of the project site. The nearest sensitive receptors to the new WTGs are rural residences in Bonnie Bell, which is 0.65 miles (approximately 3,450 feet) southeast of the project site.

2.2 General Plan Designation and Zoning

The project site is located in the County of Riverside, and the land use is designated both Open Space Rural and Open Space Recreation in the Western Coachella Valley Area Plan (County of Riverside 2019). The majority of the project site is located on land under BLM jurisdiction within the California Desert Conservation Area as amended by the Desert Renewable Energy Conservation Plan (DRECP) Land Use Plan Amendment (BLM 2016). The DRECP outlines management uses and allocated protected areas within the California Desert Conservation Area. Important BLM-protected areas in the project area include those in the following paragraphs.

BLM Areas of Critical Environmental Concern. These areas are managed for the protection of specific sensitive resources or habitats. The project site is located partially within the Whitewater Canyon ACEC. The Whitewater Canyon ACEC Management Plan was developed in 1982 in recognition of important wildlife and Native American resources. This plan’s objective is to prohibit, or minimize through mitigation, surface-disturbing activities that could conflict with sensitive resources within the ACEC. However, as noted in this plan, the ACEC designation does not prohibit development and specifically allows for wind repower where the project remains within the existing ROW boundary and reduces environmental effects. The 329 existing WTGs within the ACEC would be removed. Six new WTGs are proposed in the ACEC, reducing the overall ground disturbance and improving views from the ACEC. The areas surrounding the removed WTGs would be restored.

Sand to Snow National Monument. The California Desert Conservation and Recreation Act proposed a new national monument, the Sand to Snow National Monument, for the area between Joshua Tree

National Park and the San Bernardino National Forest. On February 11, 2016, President Obama signed a proclamation establishing the Sand to Snow National Monument in this area. The 154,000-acre national monument extends from BLM lands on the Sonoran Desert floor up to an elevation of more than 10,000 feet above mean sea level in the San Geronio Wilderness in the San Bernardino National Forest. The project site is adjacent to the national monument, but no project infrastructure would be located within the national monument's boundary. The project access roads cross the national monument.

Desert Renewable Energy Conservation Plan. The DRECP covers the entire California Desert Conservation Area, including the project site. The DRECP notes that a portion of the project site is designated as an ACEC and a Special Recreation Management Area. The DRECP also notes that wind energy development currently exists within the Whitewater Canyon ACEC and Special Recreation Management Area and states that repowering or replacement of existing wind energy facilities will be considered if the repower development remains within the existing ROW boundary and would reduce the overall environmental impacts of the wind energy facility (BLM 2016, Appendix B). The DRECP includes some of the Whitewater Canyon ACEC as part of the California Desert National Conservation Lands; however, none of this area is located within the project ROW.

2.3 Project Components

New Wind Turbine Generators

The project would include construction and operation of eight new WTGs, each of which would be mounted on a reinforced-concrete foundation. Each new WTG would have a 4.2-megawatt capacity and would be up to 492 feet (150 meters) tall from top of foundation to blade tip at apex. Each WTG consists of the tower, nacelle, hub, and three blades. The tower portion consists of a tubular steel monopole and connects to the nacelle, hub, and three-bladed rotor, and would include internal access ladders and man lifts for maintenance. The nacelle would be an aerodynamic steel and fiberglass structure atop the tower, which would contain the inner mechanical workings of the new WTGs, including its power-generating components. The hub is the fixture for attaching the blades to the main drive shaft and is covered by a fiberglass nose cone structure to streamline the airflow and protect the equipment. The blades and rotor have a diameter of up to 383.9 feet (117 meters), and each rotor is equipped with a braking system.

Additional features help the WTGs operate safely. The controller is a microprocessor that automatically regulates the operation of the new WTGs, including startup, shutdown, pitch control (technology used to operate and control the angle of the blades), yaw control (mechanism used to turn the WTG rotor against the wind), and safety monitoring. This information would be communicated to the O&M facility from the controller via fiber-optic cables. A central supervisory control and data acquisition (SCADA) system would monitor data input from the controller to streamline centralized O&M; in some cases, the system can even analyze the data and take corrective measures. A transformer would be located either inside each WTG unit or mounted next to the base to increase the output voltage. Safety lighting would be installed on the outside of some of the nacelles to comply with Federal Aviation Administration (FAA) regulations. Project-specific requirements would be developed in conjunction with the FAA. It is anticipated that the FAA will require all eight WTGs to include lighting. Lightning protection systems would be installed on each new WTG and connected to an underground grounding arrangement. All equipment, cables, and structures that make up the new WTGs would be connected to a metallic site-wide grounding network.

New Meteorological Tower

One free-standing permanent met tower would be installed in the western portion of the project site. The proposed tower would be up to 80.1 meters (approximately 263 feet) tall and would be equipped with applicable FAA-compliant marking or lighting for aviation safety. The proposed met tower would be used to monitor and verify wind characteristics at the project site. The met tower would be constructed atop a concrete foundation within a graded work area, including a crane pad for tower assembly and erection. The proposed met tower would be constructed within the project impact area. As such, no new ground disturbance would be required for construction of the proposed met tower. Under existing permits, the three existing met towers within the project site would be decommissioned prior to project construction.

Ancillary Facilities/Electrical Collection System

The proposed WTGs would require installation of new underground or overhead collector lines that would connect to the existing Mesa Wind Substation. All new overhead collector infrastructure would be installed on existing poles. All underground collector lines would be placed within the roadway alignments. The existing Mesa Wind Substation would be upgraded to replace the existing dual 12 kilovolt (kV)/115 kV transformers with a single 34.5 kV/115 kV transformer. The upgraded substation is anticipated to fit within the existing Mesa Wind Substation fence line or within the 0.1 acres of disturbed area surrounding the existing substation.

Interconnection to the Electrical Grid

Currently, generated electricity feeds into the Mesa Wind Substation and from there into the adjacent Southern California Edison (SCE) PanAero Substation, which is the point of interconnection with SCE's 115 kV distribution system. The repower would not change this interconnection, nor would it require a repowered interconnection line.

Access Roads, Buildings, and Parking Lots

The project has two existing main access roads that are up to 30 feet wide: Gold Canyon Road, which leads to the existing O&M facility, and an unnamed access road along the western portion of the project site (BLM ROW CACA-13980). An estimated 1,160 feet of the unnamed access road is on private land where the Mesa Wind energy facility has existing easements. The unnamed roadway that traverses the southern edge of the project site would be improved and widened up to 30 feet during project construction, including potential cut and fill. On-site access roads would be improved and/or widened up to 24 feet, with some areas widened up to 40 feet for appropriate turning radius. All roads would be returned to a permanent 16-foot width after construction. Imported weed-free gravel would be placed over compacted native material on some roads, up to 8 inches deep. Locally sourced gravel would be used. Although existing on-site roads would be used whenever possible to access the new WTGs, additional spur roads may be required to reach the proposed WTGs (refer to Figure 2-3). Drainage ditches and culverts may also be installed in the road. For security purposes, access roads would be gated and locked at night during both construction and operation of the proposed project.

The proposed off-site construction route would generally be from Interstate (1) 10, near Palm Springs, exiting at Haugen-Lehmann Way, then north on Haugen-Lehmann Way, north along Cottonwood Road, then east along Rockview Drive, which would then connect to the unnamed on-site access road at the project main entrance (refer to Figure 2-4, Off-site Construction Access Roads). The intersection of Cottonwood Road and Rockview Drive (wide side), and portions of Rockview Drive, east to Desert View

Road would require vegetation clearing in a disturbed area that has previously been graded for future development. The Rockview Drive right-of-way primarily includes an existing unpaved road with vegetation along the edges. The project proposes to widen the existing unpaved Rockview Drive to a width of 16 feet. The widening involves the removal of existing vegetation along the pre-existing road margins. The existing Mesa Wind energy facility includes 11.9 miles of existing access roads, of which 7.5 miles will be restored as part of the proposed project. The project would include 5.1 miles of access and spur roads; therefore, a net decrease in access roads would result as part of the proposed project. Note that an additional 1.5 miles of existing access roads will be absorbed within the proposed WTG disturbance areas. Permanent access roads would be 16 feet wide. Access roads would require periodic grading or replacement of gravel to maintain road quality for facility operations.

2.4 Project Construction

Construction Schedule

Permitting and surveying activities and decommissioning of existing WTGs would be completed prior to project construction, under the existing permits. Construction of the proposed project is anticipated to commence in mid-2021. Construction of the proposed WTGs would be completed in approximately 16 months, followed by restoration of temporary disturbance areas, as provided in the timeline presented below:

- Construction of new WTGs: mid-2021 to June 2022
- Restoration of temporary disturbance: July 2022 to March 2023

Temporary Construction Workspace, Yard, and Staging Areas

During construction, the following temporary work areas and facilities would be needed. These are shown on Figure 2-3 and included in the calculations in Table 2-1 per the latest engineering plans.

- One temporary construction facility
- WTG staging areas at each pad location
- Extra work areas (if needed on steep side slopes)
- Temporary road widening within the footprint of the project

The temporary construction facility may include:

- Temporary offices
- Tool sheds and containers
- Chemical toilets
- Additional parking for construction equipment and vehicles

Construction Workforce and Transportation

The on-site construction workforce would consist of skilled and unskilled laborers, craftsmen, supervisory personnel, safety personnel, support personnel, construction management personnel, electricians, equipment operators, ironworkers, millwrights, carpenters, general laborers, and truck drivers. The largest volume of construction vehicle traffic would likely be associated with construction workers, followed by deliveries of new WTG components, steel, aggregate, water, electrical equipment, and other general deliveries. The construction workforce would be expected to average 66 workers daily, with a peak up to 120.

A variety of construction equipment would be required during construction. This would include component trucks to transport the WTGs and the main erector crane, concrete trucks for pouring foundations, trucks used to transport aggregate, and general construction and material delivery trucks. Additional construction equipment includes the main erector crane and rough-terrain cranes. An average of 200 trucks would be used per week during the 6-month period in which the most active construction would take place. Much fewer trucks would be needed throughout the rest of the construction period.

Water Use (Construction)

Project construction would require 13.3 million gallons (41 acre-feet) of water. Water would be used primarily for earthwork compaction and for dust control and revegetation. Concrete would be obtained from permitted commercial or municipal sources or local batch plants located within the same watershed as the project site, or an on-site batch plant.

2.5 Operations and Maintenance

The project O&M activities would include maintenance of new WTGs, access roads, and electrical equipment. The existing O&M facility would continue to be used during ongoing operations. This facility includes the building and a graveled area for equipment, construction, storage, and parking. The facility may require upgrades, depending on the ultimate choice of WTG manufacturer, but any size increase in the facility would remain within the existing disturbed area.

Wind Turbine Generators

Each proposed WTG would be continuously monitored through the SCADA system that links the facility to the applicant's National System Control Center. The SCADA system could also be used to remotely shut down a WTG if necessary.

On average, each proposed WTG would require 40 to 50 hours of scheduled mechanical and electrical maintenance per year. O&M personnel would perform routine maintenance including replacing lubricating fluids, checking parts for wear, and downloading data from recording chips in anemometers.

Project Substation and Collector System

Similar to the WTGs, a periodic inspection and maintenance program would be established for the Mesa Wind Substation and collector system based on the applicant's experience operating wind energy facilities and good utility practices. Such inspection and maintenance would be performed by a combination of project staff and subcontractors.

Access Roads

In addition to inspecting and maintaining the WTGs and electrical equipment, project staff would regularly inspect and maintain all access roads, pads, and trenched areas to minimize erosion. During normal O&M activities, travel to and on the site would create minimal traffic. It is expected that road maintenance would be required twice a year, but more frequent maintenance would be conducted if needed to maintain road conditions acceptable to BLM.

Access roads would require periodic grading or replacement of gravel to maintain road quality for facility operations.

Operations Personnel and Vehicle Fleet

Currently, five employees conduct on-site O&M activities for the existing wind energy facility. The proposed project would not result in an increase in the number of employees.

The current operational fleet is composed of five pickup trucks, one forklift, and one road grader. The proposed project would not result in an increase in the on-site operational vehicle fleet.

Water Use (Operations)

Existing water use for ongoing operations of the Mesa Wind energy facility is an estimated 7,300 gallons per year for toilets and the septic system that serves the permanent O&M staff. This water is provided from an existing on-site well. The number of employees required for O&M of the proposed project would remain the same as the existing Mesa Wind energy facility. In addition, due to required speed limit of 15 mph for desert tortoise protection, no water would be required for dust abatement during O&M activities. As such, the proposed project would not require additional water supply beyond existing conditions (7,300 gallons/year) during O&M activities.

2.6 Final Decommissioning and Reclamation

The proposed WTGs would be decommissioned at the end of their estimated 30-year useful life (year 2053). At that time, the eight WTGs would be removed from the project site to an approved disposal facility and foundations would be removed to one foot below the ground surface and backfilled with native soil. All underground power cables and communication lines would be abandoned in place to avoid any additional ground disturbance. The substation, O&M facilities, met tower, and overhead poles would be removed. Decommissioning activities would be conducted within the proposed area of disturbance. Access roads and other existing disturbance areas would be utilized for decommissioning and subsequently revegetated after all project facilities have been removed. The WTG components would be dismantled and recycled to the extent feasible. Decommissioning activities are anticipated to be completed within 12 months and require a workforce of 20 people daily.

2.7 Other Permits and Approvals

CDFW is the lead agency for California Environmental Quality Act (CEQA) review of this project. CDFW has exclusive authority to approve or deny Mesa Corp's application; however, various permits from other agencies may also need to be obtained by the applicant for the proposed project. Table 2-3 summarizes the permits from other federal, state, and local agencies that may be needed for the project.

Table 2-3. Permits That May Be Required for the Mesa Wind Repower Project

Permit, Approval, or Report	Regulatory Authority	Permit Description
Federal		
Form 2920 – Land Use Application and Permit for Geotechnical testing	BLM	Permit needed to perform geotechnical testing on the site.

Table 2-3. Permits That May Be Required for the Mesa Wind Repower Project

Permit, Approval, or Report	Regulatory Authority	Permit Description
SF 299 – Application for Transportation and Utility Systems and Facilities on Federal Lands (ROW authorization permit)	BLM	Two applications are provided to BLM. One serves the wind energy facility, Mesa Wind Substation, on-site distribution line, and on-site access roads; a second application serves the off-site access road. SF 299s have been filed for both the wind energy facility and the off-site access road.
National Environmental Policy Act	BLM	An evaluation of the project’s effects on natural and human resources to determine the potential for significant impacts. BLM is preparing an Environmental Assessment.
Fieldwork Authorization (for cultural resources surveys)	BLM	Pursuant to Section 302(b) of PL 94-579, October 21, 1976, 43 USC 1732, and Section 4 of PL 96-95, October 31, 1979, 16 USC 470cc. Requires that applicant (or its cultural resources contractor) hold an active Cultural Use Permit issued by BLM’s California State Office.
Form 7460 – Notice of Proposed Construction or Alteration (14 CFR Part 77.9)	FAA	Required for erecting structures in excess of 200 feet tall. The FAA issued a Determination of No Hazard to Air Navigation for the proposed WTGs and meteorological tower on November 24, 2020.
National Historic Preservation Act Section 106 Review (36 CFR 800)	BLM	This act requires all federal agencies to consider the effect of their actions on historic properties (those listed in or eligible for inclusion with the National Register of Historic Places). Applies to any federal undertaking, funding, license, or permit. The Advisory Council on Historic Preservation, the California State Historic Preservation Officer, the Tribal Historic Preservation Officer(s), and other consulting parties would advise and assist BLM in this effort.
NPDES Construction Activities Storm Water General Permit	State Water Resources Control Board	Required for land disturbance of greater than 5 acres. Permit application needs applicant information; project description, including size of area to be affected; and other environmental permits associated with the project.
Clean Water Act Section 401/404 Permit(s)	U.S. Army Corps of Engineers	Applies if the project involves the removal or placement of fill (i.e., soil, sediment, or most other material) in or near waters of the United States. If a nationwide permit applies, no permit application is required.
Endangered Species Act, Section 7	USFWS	A Biological Opinion for the project site was issued in 2009 but USFWS, under Section 7 of the Endangered Species Act, has stated that it would require an updated Biological Opinion.
Migratory Bird Treaty Act – Bird and Bat Conservation Strategy	USFWS	USFWS recommends that electric utilities and utility-scale renewable energy project developers prepare and implement a Bird and Bat Conservation Strategy to minimize the incidental take of migratory birds and bats.
Bald and Golden Eagle Protection Act (16 USC 668a–668d)	USFWS	The Bald and Golden Eagle Protection Act allows USFWS to authorize bald eagle and golden eagle programmatic take (take that is recurring, is not caused solely by indirect effects, and that

Table 2-3. Permits That May Be Required for the Mesa Wind Repower Project

Permit, Approval, or Report	Regulatory Authority	Permit Description
		occurs over the long term in a location that cannot be specifically identified). Such take must be incidental to actions that are otherwise lawful. An Eagle Permit Application includes an Eagle Conservation Plan for a 30-year programmatic take permit for golden eagles. This permit requires National Environmental Protection Act review.
State		
Section 1600 Lake and Streambed Alteration Agreement	CDFW	Applies if the project would potentially affect waters of the state, defined as the “bed and banks” of streambeds or lakebeds as well as adjacent riparian vegetation or habitat.
Incidental Take Permit under the California Endangered Species Act	CDFW	Applies if the project would potentially affect a species listed under the California Endangered Species Act.
Hazardous Materials Business Plan (California Health and Safety Code, Division 20, Chapter 6.95)	Riverside CUPA (delegated from CalEPA)	Identifies all hazardous materials and their location at the facility.
Hauling Truck and Other Overload Permits	Caltrans	Required for construction hauling.
Storm Water Discharge Permit	State Water Resources Control Board	Required for construction sites of more than 5 acres. Authorization to be covered under the NPDES Construction General Permit and approval of a stormwater pollution prevention plan.
Local		
Joint Project Review	Coachella Valley Conservation Commission	Pursuant to the Coachella Valley MSHCP (CVMSHCP), Coachella Valley Conservation Commission review is required for a project that would affect designated CVMSHCP Conservation Areas.
Road Easement Amendment	Riverside County Flood Control and Water Conservation District	Amendment to an existing easement to allow temporary widening of the existing access road through the easement.
Road Extension/Construction Permits	Riverside County Departments	Permits such as building, grading, hazardous materials, and fire that are required from the County for the construction of approximately 1,160 feet of project access road.
Air Quality Permit	South Coast Air Quality Management District	Management of particulates generated by construction at the site is required. Typically, best management practices are employed and will be documented in the permit application.

Notes: BLM = Bureau of Land Management; SF = Standard Form; ROW = right-of-way; PL = Public Law; USC = U.S. Code; CFR = Code of Federal Regulations; FAA = Federal Aviation Administration; NPDES = National Pollutant Discharge Elimination System; CUPA = Certified Unified Program Agency; CalEPA = California Environmental Protection Agency; Caltrans = California Department of Transportation; MSHCP = Multiple Species Habitat Conservation Plan.

2.8 Applicant Proposed Measures

The applicant proposes Applicant Proposed Measures (APMs) that would be followed during all project-related construction activities. APMs are specific to environmental issue areas, such as air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology, recreation, transportation, tribal cultural resources, and wildfire. The APMs as proposed by the applicant are listed in Sections 2.8.1 through 2.8.10.

All project-related construction activity is subject to the APMs. In addition, all project personnel are subject to training prior to beginning work on the project to ensure that the APMs, environmental laws and regulations, and all other agency requirements are understood and followed.

The APMs in this section are considered part of the proposed project and are included in the evaluation of environmental impacts (refer to Chapter 3, Initial Study). The APMs were developed in consultation with CDFW based on the environmental evaluation of the project conducted under CEQA. In addition to the APMs and plans required in the APMs, during BLM's National Environmental Policy Act review, and as outlined in the project's Plan of Development, the applicant will also be responsible for preparing a Lighting Plan, a Revegetation Plan, and a Decommissioning Plan prior to construction. Prior to notice to proceed, CDFW and BLM will be provided these plans for their approval.

CDFW approval would be based upon the applicant's adherence to the project as described in this document, including this project description and the APMs, as well as any adopted mitigation measures identified in this Initial Study that CDFW adopts as part of its final agency action.

2.8.1 Air Quality

APM AQ-1 Fugitive Dust Control Plan. The project applicant shall mitigate the particulate matter impact caused by dust emissions during construction by implementing a suite of effective dust control practices, such as using soil stabilizers or watering exposed areas (two times per day or as needed) throughout construction and future decommissioning and by limiting vehicle travel speeds to no more than 15 miles per hour on unpaved areas within the construction site. Visible speed limit signs must be posted at the site entrance. Consistent with APM BIO-5 (Wildlife Protection), soil stabilizers shall be non-toxic to wildlife and plants.

APM AQ-2 On-Site Off-Road Equipment Emissions Control. The project applicant shall mitigate the NO_x , PM_{10} , and $\text{PM}_{2.5}$ in diesel exhaust emissions by requiring use of off-road equipment that achieves Tier 3 engine emissions standards.

2.8.2 Biological Resources

APM BIO-1 Wildlife Relocation. The applicant shall prepare and implement a Wildlife Relocation Plan to ensure that special-status wildlife species, including (but not limited to) desert tortoise, burrowing owl, and desert kit fox, are safely relocated outside the project construction area prior to construction. The Wildlife Relocation Plan will conform to USFWS guidelines for desert tortoise surveys and relocation and to CDFW guidelines for burrowing owl and desert kit fox passive relocation, including scheduling to avoid disturbance to natal dens or burrows. The Wildlife Relocation Plan will specify methodology for preconstruction clearance surveys on the proposed project construction sites; monitoring or tracking special-status species, burrows, or dens that may be located during the surveys;

construction of off-site artificial burrows, if needed; relocation methods for localized “out of harm’s way” relocation; passive relocation methods for burrowing owl or desert kit fox; qualifications of field personnel who may handle desert tortoises; and follow-up monitoring of relocated animals. As part of CDFW approval, a project specific Desert Tortoise Relocation Plan may also be included as a condition of the Incidental Take Permit.

APM BIO-2 Biological Monitoring. The applicant shall assign an authorized biologist as the primary point of contact for the lead resource agencies regarding biological resources mitigation and compliance. For desert tortoise protection measures (refer to APM BIO-6), the authorized biologist will also serve as the field contact representative (FCR). The applicant will provide the resume and USFWS health assessment letter, if applicable, of the proposed authorized biologist to BLM, USFWS, and CDFW (as appropriate) for concurrence at least 30 days prior to the onset of ground-disturbing activities. The authorized biologist will have demonstrated expertise with the biological resources within the project area. In general, the duties will include, but will not be limited to those listed below:

- Maintain regular, direct communication with representatives of BLM, USFWS, CDFW, and other agencies, as appropriate.
- Train and supervise additional Biological Monitors to ensure that all biological monitoring activities are completed properly and according to schedules. Monitoring will include clearance surveys of any area or activity that may impact biological resources to ensure compliance with all avoidance and minimization measures for biological resources.
- Conduct or oversee worker environmental awareness program (WEAP) training (APM BIO-3).
- Conduct or oversee clearance surveys and monitoring duties.
- Halt any activities in any area if it is determined that the activity, if continued, would cause an unauthorized adverse impact to biological resources.
- Clearly mark sensitive biological resource areas during construction, operations and maintenance (O&M), and decommissioning, and inspect these areas at appropriate intervals for compliance with regulatory terms and conditions.
- Conduct or oversee compliance inspections during ground-disturbing construction and decommissioning activities. Inspections will include delineating limits of disturbance, fence construction activities, pre-construction clearance surveys, and clearing, grubbing, and grading.
- Inspect or oversee daily inspection of active construction or O&M activity areas where animals may have become trapped. At the end of each workday, either inspect installation of structures that prevent entrapment or allow escape during periods of construction inactivity. Periodically inspect areas with high vehicle activity (e.g., parking lots) for animals in harm’s way and relocate them if necessary.
- During the O&M phase of the project, provide annual reports, conduct compliance inspections (trash management, wildlife mortality logs per incident, etc.), and conduct weed monitoring and control (according to the Integrated Weed Management Plan [IWMP]; refer to APM BIO-8).

- Immediately notify the applicant, BLM, and resource agencies (as applicable) in writing of dead or injured special-status species, or of any noncompliance with biological mitigation measures or permit conditions.
- During construction, provide weekly verbal or written updates to BLM and, for any information pertinent to state or federal permits, to BLM and the resource agencies.
- During construction and O&M, prepare and submit monthly and annual compliance reports, respectively.

Qualifications of Authorized Biologist. The applicant shall assign at least one authorized biologist to the project. The applicant shall submit the résumé and USFWS health assessment letter, if applicable, of the proposed authorized biologist(s), with at least three references and contact information, to the BLM authorized officer (AO) and CDFW for approval in consultation with USFWS at least 45 days prior to the start of ground-disturbing activities. The authorized biologist must meet the following minimum qualifications:

- A bachelor's degree in biological sciences, zoology, botany, ecology, or a closely related field
- Three years of experience in field biology or current certification of a nationally recognized biological society, such as The Ecological Society of America or The Wildlife Society
- At least 1 year of field experience with the biological resources found in or near the project area
- The current USFWS authorized biologist qualifications, a demonstrated familiarity with protocols and guidelines for the desert tortoise, and approval by USFWS

In lieu of the above requirements, the proposed authorized biologist or alternate's résumé shall demonstrate to the satisfaction of the BLM AO and CDFW in consultation with USFWS, that the candidate has the appropriate training and background to effectively implement the mitigation measures.

Process of approving a biological monitor:

- The authorized biologist or the applicant shall submit at least 45 days prior to construction the résumé, at least three references, and contact information of the proposed biological monitor to the BLM AO and CDFW. The proposed biological monitor's resume shall demonstrate, to the satisfaction of the BLM AO and CDFW, the appropriate education and experience to accomplish the assigned biological resource tasks. The biological monitor is the equivalent of the USFWS-approved biologist.
- Biological monitor(s) training by the authorized biologist shall include familiarizing the biological monitor(s) with the project design features, the Biological Opinion, the WEAP, and USFWS guidelines on desert tortoise surveys and handling procedures.

APM BIO-3

Worker Environmental Awareness Program Training. The authorized biologist must prepare and implement a WEAP. The applicant will be responsible for ensuring that all workers at the site receive WEAP training prior to beginning work on the project and throughout construction and operation. The WEAP must be available in English and Spanish. The applicant shall submit the WEAP to BLM, USFWS, and CDFW for approval prior to implementation. If BLM does not respond to submittal of the draft WEAP within

60 days, the project owner may consider this a waiver of BLM, USFWS, and CDFW authority to comment and the WEAP may be considered approved. The WEAP shall:

- Be developed by or in consultation with the authorized biologist and consist of an on-site or training center presentation with supporting written material and electronic media, including photographs of protected species, available to all participants.
- Provide an explanation of the function of the flagging that designates authorized work areas and specify the prohibition of soil disturbance or vehicle travel outside designated areas.
- Discuss general safety protocols such as vehicle speed limits; a hazardous substance spill prevention, control, and countermeasures plan; and fire prevention and protection measures.
- Review mitigation and biological permit requirements.
- Explain the sensitivity of the vegetation and habitat within and adjacent to work areas and provide procedures for proper identification of these resources.
- Discuss the federal and state Endangered Species Acts, Bald and Golden Eagle Protection Act, and the Migratory Bird Treaty Act and the consequences of noncompliance with these acts.
- Discuss the locations and types of sensitive biological resources on the project site and adjacent areas and explain the reasons for protecting these resources. This includes the biology and ecology of sensitive biological resources on the project site and adjacent areas.
- Inform participants that no snakes, other reptiles, birds, bats, or any other wildlife will be harmed or harassed.
- Place special emphasis on species that may occur on the project site, including special-status plants, desert tortoise, burrowing owl, golden eagle, nesting birds, desert kit fox, American badger, and Nelson's bighorn sheep.
- Specify guidelines for avoiding rattlesnakes and reporting rattlesnake observations to ensure worker safety and avoid killing or injuring rattlesnakes. Wherever feasible, rattlesnakes should be safely removed from the work area using appropriate snake handling equipment, including a secure storage container for transport.
- Describe workers' responsibilities regarding wildlife avoidance, prohibition of pets and firearms, and avoiding the introduction of invasive weeds to the project site and surrounding areas; describe the IWMP.
- Provide contact information for the FCR (and authorized biologist) and provide instructions for notifying the authorized biologist of discoveries of any threatened, endangered, or sensitive wildlife; vehicle-wildlife collisions; or dead or injured wildlife species encountered during project-related activities.
- Include a WEAP training acknowledgment form to be signed by each worker indicating that they received training and will abide by the guidelines. If the training program is presented as a pre-recorded presentation, it shall be accompanied by a formal process that allows submission of questions that shall be answered by the Authorized Biologist(s) within 24 hours of submission.

APM BIO-4 **Minimization of Vegetation and Habitat Impacts.** Prior to ground-disturbing activities, work areas (including, but not limited to, staging areas, access roads, and sites for temporary placement of construction materials and spoils) must be delineated with construction fencing (e.g., the common orange vinyl material) or staking to clearly identify the limits of work, and these limits must be verified by the authorized biologist. No paint or permanent discoloring agents shall be applied to rocks or vegetation to indicate surveyor construction activity limits or for any other purpose. Fencing/staking will remain in place for the duration of construction. Spoils will be stockpiled in disturbed areas. All disturbances, vehicles, and equipment will be confined to the fenced/flagged areas.

When feasible, construction activities will minimize soil and vegetation disturbance to minimize impacts to soil and root systems. Upon completion of construction activities in any area, all unused materials, equipment, staking and flagging, and refuse shall be removed and properly disposed of, including wrapping material, cables, cords, wire, boxes, rope, broken equipment parts, twine, strapping, buckets, and metal or plastic containers. Any unused or leftover hazardous products shall be properly disposed of off site.

Hazardous materials must be properly handled, and spills or leaks must be promptly corrected and cleaned up according to applicable requirements. Vehicles shall be properly maintained to prevent spills or leaks. Hazardous materials, including motor oil, fuel, antifreeze, hydraulic fluid, grease, will not be allowed to enter drainage channels.

APM BIO-5 **Wildlife Protection.** The applicant shall undertake the following measures during construction and O&M activities to avoid or minimize impacts to wildlife. Implementation of all measures shall be subject to review and approval by BLM, USFWS, and CDFW.

- *Wildlife Avoidance.* Wherever feasible, project activities shall avoid interference with wildlife (including ground-dwelling species, birds, and bats) by allowing animals to escape from a work site prior to disturbance; conducting pre-construction surveys and exclusion measures for certain species as specified in other measures; and checking existing structures and foundations for wildlife that may be present and safely excluding them prior to removing the structures.
- *Minimization of Traffic Impacts.* The applicant shall specify and enforce 15 miles per hour as the maximum vehicle speed limit to minimize risk of wildlife collisions and fugitive dust.
- *Minimization of Lighting Impacts.* Night lighting, when in use, shall be designed, installed, and maintained to prevent side casting of light toward surrounding wildlife habitat. The color and pattern (e.g., steady vs. flashing lighting) of any Federal Aviation Administration (FAA) required safety lighting will be designed to minimize potential hazards (i.e., attraction and subsequent collision) to native birds and bats.
- *Avoidance of Use of Toxic Substances.* Soil bonding and weighting agents used for dust suppression on unpaved surfaces shall be non-toxic to wildlife and plants.
- *Minimization of Noise and Vibration Impacts.* The applicant shall minimize noise impacts to off-site habitat.
- *Water.* Potable and non-potable water sources such as tanks, ponds, and pipes shall be covered or otherwise secured to prevent animals (including birds) from entering. Prevention methods may include storing water within closed tanks or covering open tanks with 2-centimeter (0.8-inch) netting. Dust abatement will use the minimum

amount of water on dirt roads and construction areas to meet safety and air quality standards. Water sources (e.g., hydrants and tanks) shall be checked periodically by biological monitors to ensure they do not create puddles.

- *Trash.* All trash and food-related waste shall be contained in vehicles or covered trash containers inaccessible to ravens, coyotes, and other wildlife and removed from the site regularly.
- *Workers.* Workers shall not feed wildlife or bring pets to the project site. Except for law enforcement personnel, no workers or visitors to the site shall bring firearms or weapons.
- *Wildlife Netting or Exclusion Fencing.* The existing fence surrounding the O&M facility will be updated to include desert tortoise exclusion fencing. The applicant may install temporary or permanent netting or fencing around equipment, work areas, or project facilities to prevent wildlife exposure to hazards such as toxic materials or vehicle strikes or to prevent birds from nesting on equipment or facilities. Bird deterrent netting will be maintained free of holes and will be deployed and secured on the equipment in a manner that, insofar as possible, prevents wildlife from becoming trapped inside the netted area or within the excess netting. The desert tortoise monitor (refer to APM BIO-6) or authorized biologist will inspect netting (if installed) twice daily, at the beginning and close of each workday. The desert tortoise monitor or authorized biologist will inspect the exclusion fence (if installed) weekly.
- *Wildlife Entrapment.* Project-related excavations shall be secured to prevent wildlife entry and entrapment. Holes and trenches shall be backfilled, securely covered, or fenced. Excavations that cannot be fully secured shall incorporate wildlife ramp or other means to allow trapped animals to escape. At the end of each work-day, a Desert Tortoise Monitor or authorized biologist shall ensure that excavations have been secured or provided with appropriate means for wildlife escape.
- *Covering Pipes and Other Hollow Construction Materials.* All pipes or other hollow construction materials or supplies will be covered or capped in storage or laydown areas. No pipes or tubing will be left open either temporarily or permanently except during active use or installation. Any construction pipe, culvert, or other hollow materials will be inspected for wildlife before they are moved, buried, or capped.
- *Procedures upon Discovery of Dead or Injured Wildlife.* Dead or injured wildlife will be reported to CDFW or the local animal control agency, as appropriate (special-status species must be reported to USFWS, BLM, and CDFW). An authorized biologist shall safely move the carcass out of the road or work area if needed and dispose of the animal as directed by the agency. If an animal is entrapped, an authorized biologist shall free the animal if feasible, or work with construction crews to free it, in compliance with safety requirements, or work with animal control or USFWS and CDFW to resolve the situation.
- *Pest Control.* No anticoagulant rodenticides, such as Warfarin or related compounds (indandiones and hydroxycoumarins), may be used within the project site, for off-site project facilities and activities, or in support of any other project activities.

APM BIO-6

Desert Tortoise Protection. All ground-disturbing activities shall avoid desert tortoise take either by installing temporary exclusion fencing or by on-site monitoring. The determination of whether to fence work areas will be made on a case-by-case basis

depending on the schedule and extent of planned activities and the topography of the work site. Desert tortoises may be handled or translocated according to the Desert Tortoise Relocation Plan, to be prepared as specified in APM BIO-1, pending approval by both USFWS and CDFW.

The authorized biologist shall conduct or oversee pre-construction clearance surveys for each work area, watch for tortoises wandering into the construction areas, check under vehicles, and examine excavations and other potential pitfalls for entrapped animals. The authorized biologist shall be responsible for overseeing compliance with desert tortoise protective measures and for coordination with BLM, USFWS, and CDFW (described below). The authorized biologist shall have the authority to halt all project activities that are in violation of these measures or that may result in take of a desert tortoise. Only the authorized biologist, or the biological monitor with direct oversight from the authorized biologist, will handle or relocate desert tortoises, and only as specifically outlined in the Desert Tortoise Relocation Plan. Any incident that is considered by the authorized biologist to be noncompliant with these measures will be documented immediately.

The authorized biologist shall be responsible for overseeing compliance with desert tortoise protective measures and for coordination with resource agencies. The FCR (an authorized biologist) shall also have the authority to halt any project activities that may risk take of a desert tortoise or that may be inconsistent with adopted mitigation measures or permit conditions. Neither the FCR nor any other project employee may bar or limit any communications between any resource agency or BLM and any biologist or biological monitor. Upon notification by another authorized biologist or biological monitor of any noncompliance, the FCR will ensure that appropriate corrective action is taken and documented. The following incidents will require immediate cessation of any project activities that could harm a desert tortoise: (1) location of a desert tortoise within a work area; (2) imminent threat of injury or death to a desert tortoise; (3) unauthorized handling of a desert tortoise, regardless of intent; (4) operation of construction equipment or vehicles outside a project area cleared of desert tortoise, except on designated roads; and (5) conducting any construction activity without a desert tortoise monitor where one is required.

The authorized biologist will be responsible for implementing, inspecting, or overseeing the following requirements in coordination with desert tortoise monitors, the applicant, and all its on-site contractors:

- *Monitoring of Desert Tortoise Exclusion Fence Installation (if necessary).* The desert tortoise exclusion fence installation will be monitored by the authorized biologist or by a biological monitor under the supervision of the authorized biologist, who will ensure that stipulations provided in the 2009 USFWS guidance for tortoise exclusionary fencing are met. Throughout the construction phase, the tortoise exclusionary fence will be checked regularly, including immediately after major rainfall events, to ensure its integrity. Repairs will be made within 48 hours of discovery to prevent any desert tortoises from entering the site.
- *Pre-Construction Clearance Survey for Fenced Areas.* For construction areas that would be fenced with desert tortoise exclusion fencing or standard construction fencing, clearance surveys will follow procedures outlined in the 2009 USFWS Desert Tortoise Field Manual or more current USFWS and CDFW guidance. The authorized biologist will conduct pre-construction clearance surveys immediately prior to initiation of ground-

disturbing activities in desert tortoise habitat regardless of the time of year. The goal of a clearance survey is to find all tortoises on the surface and in burrows that could be harmed by construction activities. Surveys will cover 100% of the acreage to be disturbed. All potential burrows within 100 feet of construction activity will be marked and avoided to the extent practicable. Those that cannot be avoided will be excavated by the authorized biologist. Pre-construction clearance surveys within a fenced area shall be completed using perpendicular survey routes within the project area. Pre-construction clearance surveys cannot be combined with other clearance surveys conducted for other species while using the same personnel. Activities cannot start until two (2) negative results from consecutive surveys using perpendicular survey routes for desert tortoise are documented.

- *Monitoring and Oversight of Activities within Construction Phase Tortoise Exclusion Fencing.* Prior to construction of proposed project facilities, temporary or permanent desert tortoise exclusion fencing may be installed around the laydown area (temporary areas in use during construction and decommissioning phases only). The existing fence surrounding the O&M facility will be updated to include desert tortoise exclusion fencing. The fence will adhere to the design guidelines in the 2009 USFWS Desert Tortoise Field Manual. The authorized biologist will conduct or oversee a clearance survey before the tortoise fence is closed to ensure that no tortoises are in the work area. Any potentially occupied burrows will be avoided until field observations or monitoring (e.g., with a motion-activated camera or fiber-optic mounted video camera) determines absence. If live tortoises or an occupied tortoise burrow are identified in the work area, tortoises shall be relocated according to the Desert Tortoise Relocation Plan by the authorized biologist or allowed to leave on their own accord before closing the fence. Either the fence shall be continuously monitored prior to closure, or clearance surveys shall be repeated prior to closure after tortoises are removed. Once installed, exclusion fencing will be inspected at least daily and following all rain events, and corrective action will be taken if needed to maintain it. Fencing around each work area will include a cattle guard or desert tortoise exclusion gate at each entry point. This gate will remain closed at all times except when vehicles are entering or leaving the project area. If it is deemed necessary to leave the gate open for extended periods of time (e.g., during high traffic periods), the gate may be left open as long as an authorized biologist or desert tortoise monitor is present to monitor for tortoise activity in the vicinity.
- *Monitoring and Oversight of Activities within Unfenced Work Areas.* As an alternative to exclusion fencing, any work conducted in an area that is not fenced to exclude desert tortoises must be monitored by a desert tortoise monitor who will stop work if a tortoise enters the work area. Work activities will only proceed at the site and within a suitable buffer area after the tortoise either has moved away of its own accord or has been relocated out of harm's way by an authorized biologist or by a desert tortoise monitor under the direct supervision of an authorized biologist. At work sites with potential hazards to desert tortoise (e.g., auger holes or steep-sided depressions) that are outside the desert tortoise exclusion fencing, the hazards will be securely covered or filled at the end of each workday. Note that work areas without tortoise exclusion fencing nonetheless will be clearly defined by other fencing materials, staking, flagging, or other measures (as described in APM BIO-4).

- *Tortoises under Vehicles.* The ground beneath parked vehicles will be inspected immediately before moving the vehicles. If a desert tortoise is found beneath a vehicle, the vehicle will not be moved until the desert tortoise leaves of its own accord.
- *Tortoises on Roads.* If a tortoise is observed on or near a road accessing a work area, the authorized biologist or desert tortoise monitor will be contacted immediately, and vehicles will stop to allow the tortoise to move off the road on its own.
- *Tortoise Observations.* Any time a desert tortoise is observed in or near a work site, project work activities will proceed at the site and within a suitable buffer area only after the tortoise either has moved away of its own accord or has been moved out of harm's way by the authorized biologist. If a desert tortoise is observed in an unfenced work area, construction will stop, and the tortoise will be allowed to move out of the area on its own. If it does not leave the site within 30 minutes, the authorized biologist may move the tortoise out of harm's way in a manner consistent with APM BIO-1 and USFWS handling guidance. If a desert tortoise or tortoise burrow is observed within the exclusion fencing, construction in the vicinity will stop, pending relocation of the tortoise(s).
- *Dead or Injured Desert Tortoises.* Upon locating a dead or injured desert tortoise, the authorized biologist will immediately notify BLM, the Palm Springs USFWS Office, and CDFW by telephone. Written notification must be made to the Palm Springs USFWS Office and CDFW within 5 days of the finding. The information provided must include the date and time of the finding or incident (if known); the location of the carcass or injured animal; a photograph; the cause of death, if known; and other pertinent information.

APM BIO-7 **Avoidance of Impacts to Special-Status Plants.** Special-status plant species are not expected to occur on the project site or access route based on the results of focused botanical surveys. The applicant shall implement biological monitoring (APM BIO-2), WEAP training (APM BIO-3), and minimization of vegetation and habitat impacts (APM BIO-4) to identify and avoid any special-status plant species. In the unexpected circumstance where special-status plants occur and project impacts cannot be avoided, the applicant shall identify and implement CDFW-approved compensatory measures to offset the unexpected, unavoidable impacts, which may include habitat acquisition, habitat restoration/enhancement, habitat management, or fee payment that benefits special-status plant species.

APM BIO-8 **Integrated Weed Management Plan.** The applicant shall prepare and implement an IWMP to minimize or prevent invasive weeds from infesting the site or spreading into surrounding habitat. BLM must approve the IWMP. The IWMP must identify weed species occurring or potentially occurring in the project area, means to prevent their introduction or spread (e.g., vehicle cleaning and inspections), monitoring methods to identify infestations, and timely implementation of manual or chemical (as appropriate) suppression and containment measures to control or eradicate invasive weeds. The IWMP must identify herbicides that may be used for control or eradication and will specify avoidance of herbicide use in or around any environmentally sensitive areas. The IWMP must also include a reporting schedule, to be implemented by the applicant.

APM BIO-9 **Monitoring and Reporting Schedule.** Encounters with desert tortoise shall be immediately reported to the FCR, an authorized biologist, or a biological monitor. The authorized biologist shall maintain a record of all desert tortoises encountered during construction and decommissioning activities. Information recorded for each desert

tortoise will include the location; date of observation; general condition of health and apparent injuries and state of healing; location of damaged exclusion fence (if applicable); if moved, location moved from and location moved to and whether the desert tortoise voided its bladder; and diagnostic markings (i.e., identification numbers or marked lateral scutes [shell plates]).

The project applicant shall provide monthly reports to BLM, USFWS, and CDFW throughout the construction and decommissioning phases that summarize the implementation of project measures pertaining to desert tortoise management. The reports must be prepared by the authorized biologist.

The project applicant will also provide annual reports to BLM, USFWS, and CDFW throughout the construction and decommissioning phases, and a final report upon completion of construction and decommissioning, that summarize the implementation of project measures pertaining to desert tortoise management. The reports will be prepared by the authorized biologist or other qualified biologist.

APM BIO-10 Trash Management. All garbage associated with the project during all phases of the project shall be contained in secure receptacles to prevent the introduction of food resources that could potentially attract or support common ravens, coyotes, and other predators or scavengers. Secure, wildlife-proof self-closing waste bins must be used for all organic waste. To reduce the possibility of ravens or other scavengers ripping into bags and exposing the garbage, plastic bags containing garbage will not be left out for pickup. All such waste material must be kept in secure waste bins or dumpsters at all times.

APM BIO-11 Raven Management Plan. The project applicant shall develop and implement a raven management plan to address activities that may occur during the pre-construction, construction, decommissioning, and O&M phases of the project that may attract common ravens (*Corvus corax*), a nuisance species that is a subsidized predator of desert tortoises and other sensitive species in the project vicinity. The measures contained in the raven management plan shall be designed to:

- Identify conditions associated with the project that might provide raven subsidies or attractants.
- Describe management practices to avoid or minimize conditions that might increase raven numbers and predatory activities.
- Describe control practices for ravens.
- Address monitoring during construction and for the life of the project and discuss reporting requirements.

The project applicant must submit payment to the project sub-account of the Renewable Energy Action Team Account held by the National Fish and Wildlife Foundation to support the USFWS Regional Raven Management Program. The one-time fee shall be as described in the cost allocation methodology or more current guidance as provided by USFWS or CDFW. The contribution to the regional raven management plan will be \$105 per acre impacted.

APM BIO-12 Revegetation. The applicant shall prepare and implement a revegetation plan for all temporarily disturbed areas, to be reviewed and approved by BLM, USFWS, and CDFW. The revegetation plan must specify success criteria and materials and methods for site

preparation, reseeding, maintaining, and monitoring revegetated areas in the following two categories:

- Temporarily disturbed areas where no future disturbance will occur (e.g., cut and fill slopes along roadways or wind turbine generator (WTG) pads, to be left undisturbed throughout the life of the project). The goal of revegetation on these sites will be restoration of vegetation and habitat characteristics to provide habitat for listed species comparable to what is present before the disturbance.
- Temporarily disturbed construction areas around WTGs, where future repairs or maintenance may necessitate further disturbance during the life of the project. The goal of revegetation on these sites will be to minimize dust, erosion, and invasive weeds from disturbed sites, but not to restore pre-disturbance habitat values (those impacts are mitigated through off-site compensation).

The nature of revegetation will differ according to each site, its pre-disturbance condition, and the nature of the construction disturbance (e.g., drive and crush vs. blading). The revegetation plan must include (a) soil preparation measures, including locations of recontouring, de-compacting, imprinting, or other treatments; (b) details for topsoil storage, as applicable; (c) plant material collection and acquisition guidelines, plants from the project site, as well as obtaining replacement plants from outside the project area (sources for plant materials will be limited to locally occurring native species from the local area); (d) a plan drawing or schematic depicting the temporary disturbance areas described above; (e) the time of year that the planting or seeding will occur and the methodology of the planting; (f) a description of the irrigation, if used; (g) success criteria; (h) a monitoring program to measure the success criteria, commensurate with the revegetation plan's goals; and (i) contingency measures for failed revegetation efforts not meeting success criteria.

APM BIO-13 Post-Construction Monitoring for Birds and Bats. The applicant shall conduct post-construction mortality surveys for bird and bat populations on the project site.

APM BIO-14 Bird and Bat Conservation Strategy. The applicant shall prepare and implement a bird and bat conservation strategy (BBCS) in coordination with BLM, USFWS, and CDFW. The BBCS will specify (1) pre-construction survey schedule and methodology to locate nesting birds, including burrowing owl, near planned construction activities; (2) minimization and avoidance measures to prevent project-related nest abandonment or other potential take of nesting birds; (3) passive relocation methods to be implemented if an active burrowing owl burrow is located near work activity areas; (4) pre- and post-operation monitoring protocol for bird and bat mortality; (5) mortality thresholds for listed or sensitive birds that will trigger adaptive management measures, (6) an adaptive management strategy to be implemented in the event mortality thresholds are exceeded, and (7) a format and schedule for reporting monitoring data and adaptive management actions to BLM, USFWS, and CDFW.

APM BIO-15 Golden Eagle. The applicant shall work with USFWS to determine the best path forward for the proposed project to reduce the effects to golden eagles, which may include obtaining a golden eagle take authorization under the federal Bald and Golden Eagle Protection Act.

2.8.3 Cultural Resources

- APM CUL-1 Archaeological Worker Environmental Awareness Program.** The project applicant shall develop a worker environmental awareness program (WEAP) for all construction supervisors and crew to ensure their awareness of requirements regarding the protection of historic properties and procedures to be implemented in the event that archaeological sites are encountered during ground-disturbing activities. This training must be approved by BLM and presented by a qualified cultural resources specialist. All construction supervisors and crewmembers will be required to undergo archaeological WEAP training prior to commencement of ground-disturbing activities or prior to beginning work on the project site. WEAP training will also be required for decommissioning personnel.
- APM CUL-2 Archaeological Monitoring.** The applicant shall develop procedures for archaeological monitoring, post-review discovery, and unanticipated effects and submit them to BLM for review and approval prior to initiation of construction activities. Qualified archaeologist(s) will be on site part time during new ground-disturbing construction activities. Qualified archaeologist resumes must be submitted to BLM for review and approval 30 days prior to the individual working on the site.
- APM CUL-3 Procedures upon Encountering Archaeological Resources.** All construction crews will be alerted to the potential for encountering archaeological resources. In the event that archaeological resources (sites, features, and artifacts) are exposed during construction activities involving ground disturbance for the project, all construction work occurring within 100 feet of the find shall immediately stop, BLM must be immediately notified, and the discovery must be inspected by a qualified archaeologist who meets the Secretary of the Interior's Professional Qualification Standards. The 100-foot avoidance buffer may be adjusted following inspection of the area by the qualified archaeologist. Depending on the significance of the find, BLM will make a determination on how the discovery will be treated.
- APM CUL-4 Treatment of Human Remains.** In accordance with the Native American Graves Protection and Repatriation Act, if human remains are found during ground-disturbing activities, BLM must be notified immediately. Excavation or disturbance in the area of the discovery must cease and a reasonable effort must be made to protect the human remains and other cultural items. BLM must certify receipt of the notification within three working days and take immediate steps, if necessary to comply with the Native American Graves Protection and Repatriation Act, to further secure and protect the human remains and other cultural items.

2.8.4 Geology and Soils

- APM GEO-1 Site Design Requirements.** Site design and engineering shall be conducted in conformance with recommendations specified in site-specific geotechnical and geologic feasibility studies and soils reports prepared for the project.
- APM PAL-1 Paleontological Monitoring.** Prior to construction-related excavations, a qualified paleontologist meeting the 2010 Society of Vertebrate Paleontology standards shall be retained, shall attend the preconstruction meeting, and shall present a worker environmental awareness program (WEAP) to the construction crew. The WEAP shall discuss the types of fossils that may potentially be uncovered during project excavations,

laws protecting paleontological resources, and appropriate actions to be taken when fossils are discovered.

For excavations below a depth of 10 feet below the original ground surface (i.e., 10 feet below the depth of documented artificial fill) planned for the project in the southern area (wind turbine generators [WTGs] 1, 2, and 3 and the temporary construction facility), a qualified paleontologist or a qualified paleontological monitor meeting the 2010 Society of Vertebrate Paleontology standards shall be present to monitor the excavations for paleontological resources. The qualified paleontologist shall determine if the sediments are old enough and fine-grained enough to warrant continued monitoring. If it is determined that paleontological monitoring need not be continued at the 10-foot depth, then paleontological spot-checking shall occur at 5-foot increments below 10 feet to determine the suitability for fossil preservation. The qualified paleontologist shall produce a final paleontological monitoring report that discusses the paleontological monitoring program, any paleontological discoveries, and the preparation, curation, and accessioning of any fossils into a suitable paleontological repository.

In addition, if excavations below a depth of 10 feet below the original ground surface are planned, a paleontological resources mitigation and monitoring plan shall be prepared for review and approval by the Bureau of Land Management and the California Department of Fish and Wildlife. This plan shall provide the process for monitoring in those areas with excavation more than 10 feet deep, work stoppage for identified paleontological resources, and collection and curation of these resources.

2.8.5 Hazards and Hazardous Materials

APM HAZ-1 Hazardous Materials Business Plan. Renew and expand the existing Hazardous Materials Business Plan (HMBP). The existing HMBP shall be updated to accommodate the project and shall be submitted to the Bureau of Land Management for review and approval prior to the start of project construction. The HMBP shall include:

- Business activities
- Business owner/operator identification
- Hazardous materials inventory
- Site map
- Emergency response/contingency plan
- Employee training description

APM HAZ-2 Spill Prevention, Control, and Countermeasures Plan. The existing spill prevention, control, and countermeasures (SPCC) plan shall be updated to accommodate the repower project and submitted to the Bureau of Land Management for review and approval prior to the start of construction. The SPCC plan shall meet the requirements of EPA's Oil Pollution Prevention; Spill Prevention Control and Countermeasure Rule (40 CFR Part 112). The SPCC plan shall include details on oil/fuel storage containers, secondary containment, inspections, testing, record keeping, training, security measures, emergency procedures, key contact information, and spill reporting requirements. The SPCC plan shall include a prediction of the direction, flow rate, and quantity of oil that

could be released in a worst-case release. The plan appendix shall include an inspection form and a discharge report form that can be used at the site.

2.8.6 Hydrology and Water Quality

APM WATER-1 Water Supply Commitment Letter. A report shall be submitted to BLM summarizing the results of the well test indicating that the on-site well would not be able to support project construction activities. A water supply commitment letter from the off-site water supplier shall be obtained and submitted to BLM prior to the start of construction.

APM WATER-2 Groundwater Monitoring Plan. A Groundwater Monitoring Plan shall be prepared prior to the start of construction by a qualified professional geologist, hydrogeologist, or civil engineer specializing in groundwater and who is registered in the State of California. This plan shall be submitted by the applicant to BLM for approval. Details of the plan will be finalized based on initial survey of the on-site well(s) and upon discussions between the applicant and BLM but are expected to include the following:

- The Groundwater Monitoring Plan shall provide existing well information and a methodology for monitoring groundwater levels and usage. Monitoring shall be performed during pre-construction, construction, and initial operation of the project, with the intent to establish pre-construction and project-related groundwater trends that can be compared against and related to observed trends at nearby active wells, if any.
- The Groundwater Monitoring Plan shall include a schedule for submittal of quarterly data reports by the applicant to BLM for the duration of the monitoring period. Based on the results of the quarterly reports, the applicant and BLM shall determine whether the project's pumping activities have resulted in water level decline in the project site well, at any wells that may be installed or used for monitoring, or at nearby operating private wells, if any. If significant drawdown occurs at active off-site groundwater supply wells sufficient to adversely affect yield, the applicant shall immediately reduce groundwater pumping until water levels stabilize or recover, to a reasonable level. The threshold of significance of the water level decline and associated mitigation measure for operating water supply wells shall be outlined in the Groundwater Monitoring Plan.
- The Groundwater Monitoring Plan shall include a schedule for submittal of annual data reports by the applicant to BLM for the first 2 years of the project (including the construction period). These annual data reports shall be prepared and submitted to BLM for review and approval, and shall include at a minimum the following information:
 - Total water used on a monthly and annual basis in acre-feet and a summary of all water level data
 - Identification of trends that indicate potential for off-site wells to experience decline of water level

Based on initial survey of the on-site well(s), BLM shall determine whether operating groundwater supply wells in the vicinity of the project site may be influenced by project activities. The Groundwater Monitoring Plan shall describe additional measures that may be implemented if BLM determines that such additional measures are required, which shall be implemented as agreed upon in the Groundwater Monitoring Plan and with the concurrence of BLM. After the first 2 years of the project, the applicant and BLM shall

jointly evaluate the effectiveness of the Groundwater Monitoring Plan and determine whether monitoring frequencies or procedures should be revised or eliminated.

2.8.7 Recreation

APM REC-1 The applicant shall prepare a fact sheet about the project including a construction schedule and safety information regarding trucks and other heavy equipment on local roads. The applicant shall distribute this fact sheet to users of the Pacific Crest Trail via informational kiosk at trailheads. Additional locations may be determined by the Bureau of Land Management Authorized Officer.

The applicant shall post temporary signs at road crossings for trail users and at trail crossings for truck drivers and equipment operators during periods when increased traffic is expected.

2.8.8 Transportation

APM TRA-1 **Traffic Management Plan.** The applicant shall prepare and implement a Traffic Management Plan that must include, but not be limited to, the following:

- Caution signs and/or flagmen to regulate traffic where necessary and to maintain a safe transportation corridor during construction.
- Provide construction notice and schedule to emergency providers and members of the Community of Whitewater a minimum of 15 days in advance of construction activities.
- List of locations of encroachment permits required from the California Department of Transportation and the County of Riverside.
- Provide confirmation following construction that roadways are returned to preconstruction level of service conditions.

The Traffic Management Plan shall be submitted to the Bureau of Land Management and Riverside County Transportation and Land Management Agency for review and approval at least 60 days prior to the start of project construction.

2.8.9 Tribal Cultural Resources

APM TCR-1 **Cultural Sensitivity Training.** Prior to the commencement of ground-disturbing activities, a Cultural Sensitivity Training by the Soboba Band of Luiseño Indians shall be required for all construction personnel and project biologists. Training will include a brief description of Tribal history and cultural affiliation of the project's location and the surrounding area; what resources could potentially be identified during earthmoving activities; the protocols that apply in the event unanticipated cultural resources or wildlife species of Tribal cultural patrimony are identified, including who to contact and appropriate avoidance measures until the impacts can be properly evaluated; and any other appropriate protocols. This is a mandatory training and all construction personnel and project biologists must attend prior to beginning work on the project site.

APM TCR-2 **Tribal Monitoring.** Prior to commencement of ground-disturbing activities, Mesa Wind Power Corporation shall enter into an agreement for Tribal monitoring with the Soboba Band of Luiseño Indians, a *Culturally Affiliated Native American Tribe* who has completed

AB 52 Tribal consultation with California Department of Fish and Wildlife (CDFW) as provided for in Public Resources Code Section 21080.3.2(b)(1) of AB 52.

A Tribal Monitor from the Soboba Band of Luiseño Indians shall be on site during project-related ground-disturbing activities, including clearing, grubbing, tree removals, grading, and trenching. In coordination with the biological monitors, a Tribal Monitor from the Soboba Band of Luiseno Indians shall provide specific culturally related information regarding wildlife species that are of Tribal cultural patrimony. This may include but is not limited to providing recommendations for culturally appropriate methods of handling impacted species with respect to Tribal customs.

Mesa Wind Power Corporation shall also enter into an agreement for Tribal monitoring with the Agua Caliente Band of Mission Indians and the Campo Band of Mission Indians upon the request of such Tribe. Tribal Monitor(s) from these Tribes shall be on site, unless these Tribes agree otherwise, during project-related ground-disturbing activities, including clearing, grubbing, tree removals, grading, and trenching.

In conjunction with the Archaeological Monitor(s), the Tribal Monitor(s) shall have the authority to temporarily divert, redirect, or halt the ground-disturbing activities to allow identification, evaluation, and potential recovery of cultural resources. Mesa Wind Power Corporation shall submit a fully executed copy of the agreement(s) to CDFW documenting compliance with this APM. This agreement shall not modify any project mitigation measure required by CDFW or a project APM.

APM TCR-3 Unanticipated Impacts and Discoveries. In the event that wildlife species of Tribal cultural patrimony are identified or impacted, the authorized biologist shall ensure that the biological monitor(s), in consultation with the Tribal Monitor(s), include the Tribal significance of the species in any necessary documentation. The authorized biologist must concur that all required procedures have been met before construction activities will be allowed to resume in the affected area.

In the event that previously unidentified potentially significant cultural resources are discovered, the Archaeological and/or Tribal Monitor(s) shall have the authority to divert or temporarily halt ground-disturbing operations in the area of discovery to allow evaluation of potentially significant cultural resources. The Project Archaeologist, in consultation with the Tribal Monitor(s), shall determine the significance of the discovered resources and recommend further treatment that may be necessary.

2.8.10 Wildfire

APM FIRE-1 Construction Fire Prevention Plan. Prior to the start of any construction activities (e.g., prior to the use of vehicles or mechanical equipment on site), the applicant (in coordination with its contractors) shall prepare a Construction Fire Prevention Plan for review and approval by the Bureau of Land Management (BLM) and Riverside County Fire Department (RCFD) that includes (but would not be limited to) the following information along with provisions to be implemented during construction:

- Responsibilities of the project applicant, its contractor(s), BLM, and RCFD with respect to fire prevention and inspection of work areas
- On-site personnel in charge of overseeing Construction Fire Prevention Plan implementation

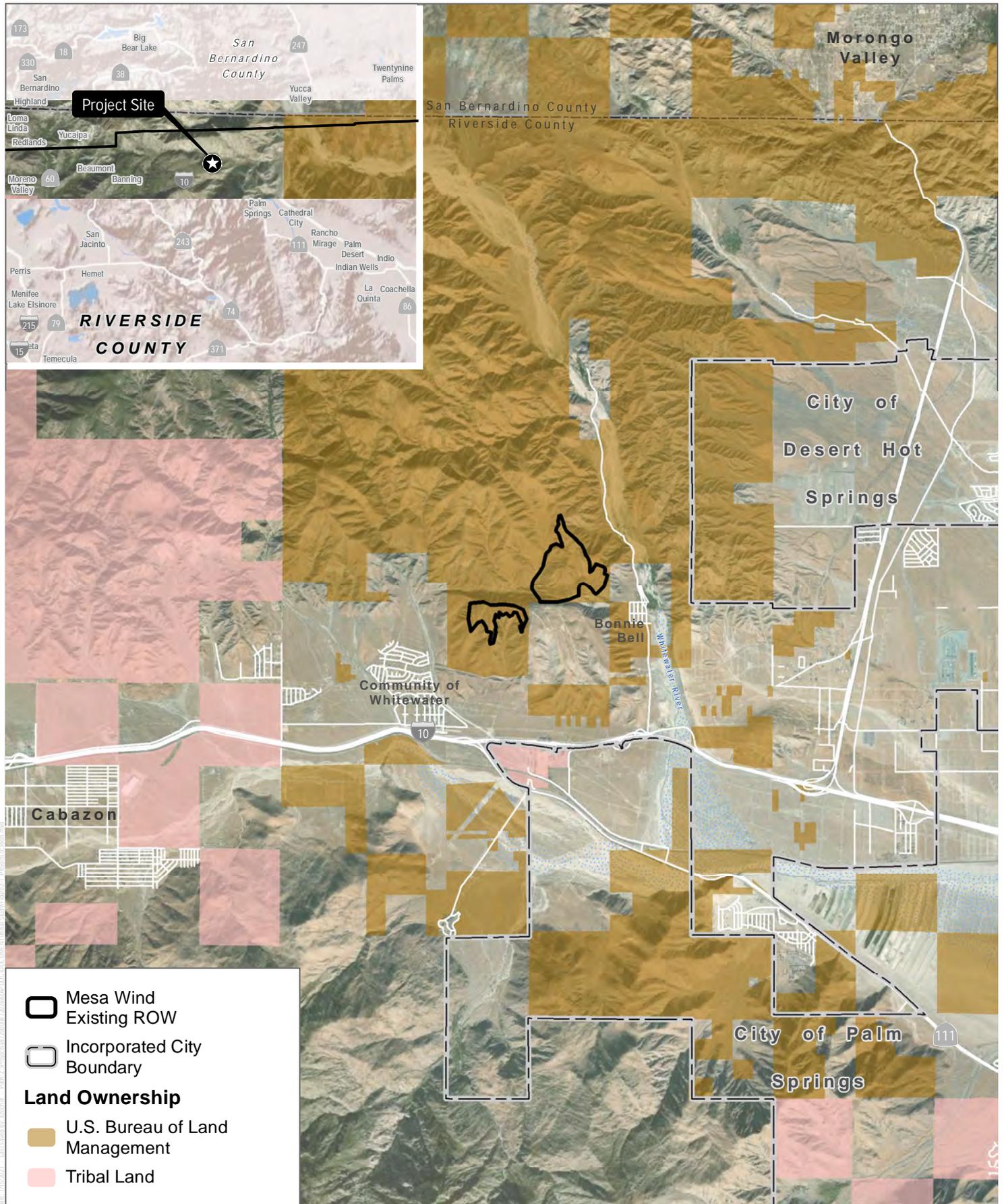
- Emergency communication, response, and reporting procedures
- Procedures for minimizing potential ignition, including, but not limited to, vegetation clearing, parking requirements/restrictions, idling restrictions, smoking restrictions, proper use of gas-powered equipment, use of spark arresters, and hot work restrictions
- Construction staff and equipment that can be used for fighting fire
- Worker training for fire prevention, initial attack firefighting, and fire reporting
- Identification of fire suppression equipment to be maintained in work areas and staging areas
- Emergency measures for construction curtailment
- Provisions for fire/emergency services access if roadway blockage occurs during construction and operation
- Designated cleared, maintained worker parking and construction staging areas; no parking or construction activities in non-designated areas
- Prohibition of smoking and open fires at the project site during construction and operation, with a copy of the notification to all contractors regarding prohibiting smoking and burning to be provided to BLM and RCFD
- Assurances that all internal-combustion construction equipment are equipped with appropriate spark arresters and that fire extinguishers are immediately available and maintained in readiness for use at all times
- Presence of a fire watch with appropriate firefighting equipment available at the project site at all times when welding or other spark-generating activities are taking place; prohibition of spark-producing activities (such as welding and metal cutting) when sustained winds exceed limits set forth by BLM and RCFD
- Appropriate hot work permits/approvals (for activities such as welding and metal cutting) to be obtained from BLM or other jurisdictional fire agency
- Curtailment of all construction activities in the event of a fire or when fuel and weather conditions get into the “very high” and “extreme” ranges (Red Flag Warning), as determined by the National Weather Service, with specific project-related activities to be allowed during very high or extreme weather conditions at the discretion of BLM
- Information contained in the Construction Fire Prevention Plan and location of fire-suppression materials and equipment to be included as part of the employee environmental training discussed in APM BIO-3 (Worker Environmental Awareness Program Training)

APM FIRE-2

Fire Management Plan. Prior to operation of new wind turbine generators (WTGs), the project applicant shall update the Fire Management Plan for review and approval by the Bureau of Land Management (BLM) and Riverside County Fire Department (RCFD). The Fire Management Plan shall contain (but not be limited to) the following provisions to be implemented during operation and maintenance:

- Guidance on where maintenance activities may occur (non-vegetated areas, cleared access roads, and work pads that are approved as part of the project design plans)

- A vegetation management plan to address vegetation clearance around all WTGs and plans for regularly scheduled brush clearance of vegetation on and adjacent to all access roads, power lines, and other facilities; all vegetation clearance and fire breaks to be consistent with BLM and RCFD requirements
- Means for ensuring on-site operational fire water supply (i.e., a functioning well or storage tank) is available prior to operation and documentation of fire flow rates consistent with BLM and RCFD requirements
- Procedures for supervisory control and data acquisition (SCADA) system (or other constant monitoring equipment) providing immediate notifications to emergency fire services
- Coordination and communication procedures with BLM and RCFD
- Personnel training and fire suppression equipment
- Red Flag Warning restrictions for operations and maintenance work
- Fire safety coordinator role as manager of fire prevention and protection procedures and coordinator with BLM and RCFD
- Other information as required by the California Department of Forestry and Fire Protection (CAL FIRE), BLM, and RCFD, as applicable



SOURCE: ESRI, Aspen 2020

DUDEK



0 4,250 8,500 Feet

FIGURE 2-1

Project Location

Mesa Wind Repower Project

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- ◻ Mesa Wind Existing ROW (CACA-55718)
- Substation Building
- ▣ O&M Facility
- Wind Turbine Generators**
- Operational
- Non-Operational
- Collector Line
- Overhead Transmission Lines**
- - Existing 115 kV Transmission Line
- - 12 kV Transmission Line (CACA-13980)
- Access Roads**
- Internal
- External (CACA-13980)
- Land with Special Designations**
- Sand to Snow National Monument
- ▣ Area of Critical Environmental Concern (ACEC)

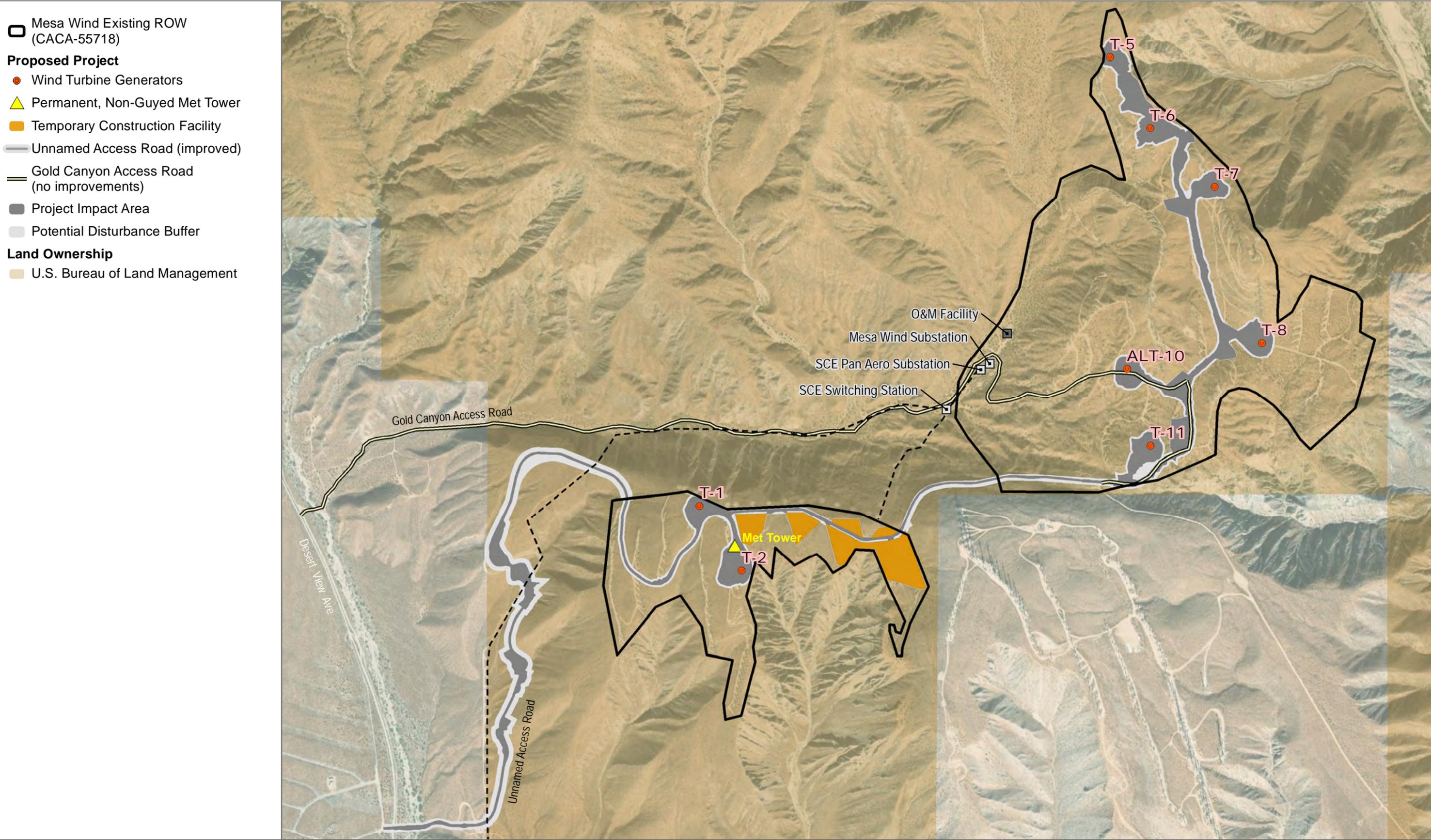


SOURCE: ESRI, Aspen 2020



FIGURE 2-2
Existing Mesa Wind Energy Facility
Mesa Wind Repower Project

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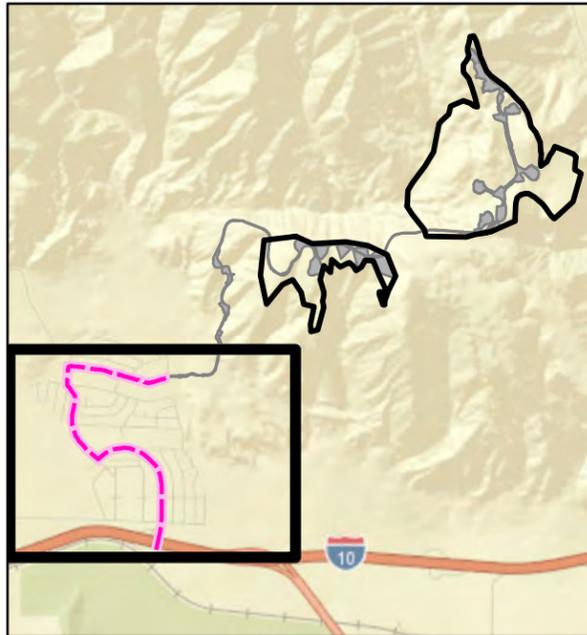


SOURCE: ESRI, BLM



FIGURE 2-3
Site Plan
Mesa Wind Repower Project

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- Off-Site Delivery Route
- Project Entry Road



SOURCE: ESRI, Aspen 2020



FIGURE 2-4
Off-Site Construction Access Roads
Mesa Wind Repower Project

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3 Initial Study

1. Project Title:

Mesa Wind Repower Project

2. Lead Agency Name and Address:

California Department of Fish and Wildlife

Inland Deserts Region (Region 6)

3602 Inland Empire Boulevard, Suite C-220

Ontario, California 91764

3. Contact Person and Phone Number:

Magdalena Rodriguez

909.844.2520

4. Project Location:

The Mesa Wind energy facility is located on 401 acres of Bureau of Land Management (BLM)-administered lands in Riverside County, approximately 11 miles northwest of the City of Palm Springs. The project site is situated north of Interstate 10, along the foothills to the San Bernardino Mountains. The project area is rural, open space that is sparsely populated. The site is located at the western edge of the Coachella Valley in the eastern portion of San Gorgonio Pass.

5. Project Proponent's Name and Address:

Brookfield Renewable Energy, Mesa Wind Power Corporation

6703 Oak Creek Road

Mojave, California 93501

[Tel.] 212.213.0781, [Email] jonathan.kirby@brookfieldrenewable.com

6. General Plan Designation:

Land use is designated both Open Space Rural and Open Space Recreation in the Western Coachella Valley Area Plan.

7. Zoning: Open Space Rural and Open Space Recreation.

8. Description of Project:

Refer to Chapter 2, Project Description.

9. Surrounding Land Uses and Setting:

Local land uses include existing wind energy facilities (the Alta Mesa Wind Facility is immediately to the south), off-highway vehicle trails, and protected space, including an Area of Critical Environmental Concern, and areas that have been designated "wilderness" by BLM. The Pacific Crest Trail runs north of and adjacent to the west side of the project site. The Mesa Wind energy

facility is located near two small rural communities, including Whitewater to the southwest and Bonnie Bell to the southeast.

10. Other Required Agency Approvals:

Refer to Section 2.6, Other Permits and Approvals.

11. Native American Tribes:

On June 23, 2020, the California Department of Fish and Wildlife (CDFW) sent a request to the Native American Heritage Commission (NAHC) for a search of the Sacred Lands File and a list of Tribes that may be affiliated with the project area. NAHC performed a record search of the Sacred Lands File and provided a list of Native American Tribes who may have knowledge of cultural resources in the project area. On August 5, 2020, CDFW provided notification of the project under the California Environmental Quality Act (CEQA) Section 21080.3.1 and CDFW's Tribal Communication and Consultation Policy to the 20 Tribes identified by NAHC. The notification letters included a description of the project and potential impacts to Tribal interests and invited consultation pursuant to CEQA and CDFW's Tribal Communication and Consultation Policy. Refer to Section 3.18, Tribal Cultural Resources, of this document for additional information regarding Tribal outreach conducted by CDFW.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" and requiring implementation of mitigation as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture & Forestry Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology/Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials |
| <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |

Environmental Determination

On the basis of this initial evaluation:

- I find that the Proposed Project COULD NOT have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- I find that the Proposed Project MAY have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- I find that the Proposed Project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
- I find that although the Proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the Proposed Project, nothing further is required.

SCANNED SIGNATURE HERE

DocuSigned by:

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3/4/2021

Leslie MacNair, Regional Manager
California Department of Fish and Wildlife
Inland Deserts Region

Date

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Environmental Checklist

3.1 Aesthetics

AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

3.1.1 Setting

Methodology and Terminology

Aesthetics, as addressed in the California Environmental Quality Act (CEQA), refers to visual elements in the physical environment that contribute to the aesthetic and/or scenic character and quality of the environment. These elements can be either natural or human-made. Landforms, water, and vegetation patterns are among the natural landscape features that define an area’s visual character and quality, whereas buildings, roads, and other structures reflect human modifications to the landscape. These natural and built landscape features contribute to the public’s experience and appreciation of the visual environment. A visual resources study (refer to Appendix A to this Initial Study) that was prepared for the project in July 2020 was used to inform the analysis in this section. Elements that make up the visual environment surrounding the project site are presented in Figures H2-A through H-7A (refer to Appendix A for all figures referred to in this section of the Initial Study).

The project setting was evaluated from various public roads and vantage points to develop an overall assessment of the existing landscape character, visual quality, and viewing conditions. Then, at representative viewpoints or key observation points (KOPs), the existing landscape was characterized by visual quality, viewer concern, viewer exposure and overall visual sensitivity. KOPs were selected in consultation with the Bureau of Land Management (BLM) and informed by a review of the project viewshed as discussed later in this section and illustrated in Figure H-0 (refer to Appendix A).

KOPs are representative, stationary viewing locations selected for the purpose of analyzing and describing existing visual resources and for preparing visual simulations and conducting impact assessments. KOPs were generally selected to be representative of the most critical public viewing locations from which the project would be seen, based on the number of viewers in a given area, viewer groups, and viewer sensitivity to visual changes in the environment. Six KOPs were selected to characterize the local project

setting and are shown on the KOP map presented in Appendix A as Figure H-1. Each of the factors considered in the evaluation of the existing landscape at each KOP is discussed below, and the individual KOP analyses are presented in Section 3.1.2, Impact Analysis.

Visual Quality is a measure of the overall impression or appeal of an area as determined by particular landscape characteristics such as landforms, rock forms, water features, vegetation patterns, and existing built features. The physical appearance and cultural context of a landscape gives it an identity and sense of place. The aesthetic elements of form, line, color, and texture are integral to the understanding of the landscape character attributes of variety, vividness, coherence, uniqueness, harmony, and pattern. These attributes contribute to the visual quality classifications of Low (indistinctive or lacking in scenic features), Moderate (common or average), and High (distinctive with valued scenic attributes). Visual quality is studied as a point of reference to assess whether a given project would appear compatible with the established features of the setting or would contrast noticeably and unfavorably with them.

Viewer Concern addresses the level of interest or concern of viewers regarding an area's visual resources (rated from Low to High) and is closely associated with viewers' expectations for the area, typical viewing duration, and view availability. Viewer concern reflects the importance placed on a given landscape based on the human perceptions of the intrinsic beauty of the existing landforms, rock forms, water features, vegetation patterns, as well as built and cultural features. When viewing the same landscape, people may have different responses to that landscape and to any proposed visual changes based on their values and their familiarity with, concern for, or expectations of that landscape and its scenic quality. Because each person's attachment to, and value for, a particular landscape is unique, visual changes to that landscape inherently affect viewers differently. However, generalizations can be made about a viewer's sensitivity to scenic quality and visual changes based on the viewer group. For example, recreationists, hikers, equestrians, tourists, and people driving for pleasure are expected to have high concern for scenery, visual quality, and landscape character; people who are commuting daily through the same landscape generally have a moderate concern for scenery; and people actively working in the area generally have a lower concern for scenic quality or changes to existing landscape character.

Viewer Exposure describes the degree to which viewers are exposed to views of the landscape (rated from Low to High). Viewer exposure considers landscape visibility (the ability to see the landscape), distance zones (proximity of viewers to the subject landscape), number of viewers (Low to High), and the duration of view (Brief to Extended). Landscape visibility can be a function of several interconnected considerations, including proximity to viewing point, degree of discernible detail, seasonal variation (snow, fog, and haze can obscure landscapes), time of day, and/or presence or absence of screening features such as landforms, vegetation, and/or built structures. Even though a landscape may have highly scenic qualities, it may be remote, receiving relatively few visitors, and therefore have a lower degree of viewer exposure. Conversely, a subject landscape or project may be situated relatively close to a major road or highway used by a substantial number of motorists and yet still result in relatively low viewer exposure if the rate of travel speed is high and viewing times are brief, or if the landscape is partially screened by vegetation, terrain variation, or other features. Often, it is the subject area's proximity to viewers, or distance zone, that is of particular importance in determining viewer exposure. Landscapes are generally subdivided into three or four distance zones based on relative visibility from travel routes or observation points. Distance zones typically include Foreground/Middleground (0-5 miles away),

Background (5-15 miles away) and Seldom Seen (beyond 15 miles away). The actual number of zones is dependent on the existing terrain characteristics and is determined on a project-by-project basis.

Overall Visual Sensitivity is a concluding assessment of an existing landscape's susceptibility to an adverse visual outcome (rated from Low to High). A landscape with a high degree of visual sensitivity is able to accommodate only a low degree of adverse visual change without resulting in a substantial visual effect. A landscape with a low degree of visual sensitivity is able to accommodate a high degree of adverse visual change before exhibiting a substantial visual effect. Overall visual sensitivity is derived from an equally weighted comparison of existing visual quality, viewer concern, and viewer exposure.

Regional Context

The project region is characterized by open desert expanses and mountainous terrain, along with extensive areas of urban development and isolated pockets of rural residential development. The project is located at the western edge of the Coachella Valley in the eastern portion of the San Gorgonio Pass. The pass divides the San Bernardino Mountains to the north from the San Jacinto Mountains to the south. Mount San Jacinto is the dominant land feature in the region, rising abruptly from the desert floor to a height of 10,839 feet above mean sea level. The project site is north of Interstate 10 (I-10), along the foothills to the San Bernardino Mountains. The Whitewater River flows east of the site through Whitewater Canyon. Several utility corridors are concentrated in this area, and due to the constant prevailing westerly winds through the San Gorgonio Pass, the highest concentration of commercial wind energy development in Riverside County occurs in this area.

Project Viewshed

The project viewshed is generally defined as the areas and locations from which the project would be visible and encompasses portions of the Coachella Valley to the east and San Gorgonio Pass to the west. The San Bernardino Mountains to the north and the San Jacinto Mountains to the south of the project site limit the viewshed to the north and south. Figure H-0 in Appendix A presents a viewshed map for the immediate project area. As shown in the figure, the viewshed map has been subdivided (color-coded) in terms of how many wind turbine generators (WTGs) would be visible from a particular location. The viewshed map is based solely on terrain and does not account for possible vegetation or structural screening.

Given the project site's location along the foothills of the San Bernardino Mountains, most views of it are from inferior (lower-elevation) positions, which result in the skylining (extending above the horizon) of some structures from some viewing directions. Skylining would be most noticeable when approaching or viewing the project from the west due to the greater availability of foreground views. Views from the south and east would experience less skylining due to the mountainous backdrop. There are limited superior (higher-elevation) viewing opportunities, but they do occur along the Pacific Crest Trail (PCT) north of project site and along the northern descent from Mount San Jacinto south of the project site, although at a farther distance. When viewed from these higher-elevation views, more of the structures are backdropped by terrain rather than sky.

Viewer Groups

The primary viewer groups are motorists, residents, and recreational viewers. These groups include east- and westbound travelers on I-10; northbound travelers on State Route (SR-) 111; north- and southbound travelers on SR-62; north- and southbound travelers on Whitewater Canyon Road; northbound travelers on Snow Creek Road; residents in the communities of Bonnie Bell, Whitewater, and Snow Creek Village; and north- and southbound hikers on the PCT. The duration of views of the project site depends on the

viewing population. Stationary viewing populations (such as residents) and slow-moving viewing populations (such as hikers on the PCT) have more time to view the project. Fast-moving viewing populations (such as motorists on nearby roadways) have less time to view the project, but the openness of the landscape can still afford extended view durations even for freeway (I-10) travelers.

Motorists

Motorists in the project area are afforded views of the project site and surrounding landscape. I-10, the major travel corridor in the region that goes through the San Gorgonio Pass, is just south of the project site. SR-111 connects I-10 to the City of Palm Springs to the southeast. SR-62 (Twentynine Palms Highway) intersects with I-10 east of Whitewater and travels north to Morongo Valley, passing east of the project area. Surrounding local roads, including Whitewater Canyon Road, a County Eligible Scenic Highway (County of Riverside 2020a), are also afforded views of the project area. Motorists traveling on these roads, as well as nearby local roads, are afforded views of the nearby mountain range and foothills, the flat valley floor, a variety of vegetation, and existing utility corridors and wind energy facilities in the project area.

Residents

Bonnie Bell is a residential enclave set among trees along Whitewater Canyon Road, north of I-10 and southeast of the project site. Whitewater (formerly known as West Palm Springs Village) is a residential community in the vicinity of, and extending to the west of, Haugen-Lehmann Way, southwest of the project site and immediately north of I-10. Snow Creek Village is another residential enclave set among trees at the northern base of Mount San Jacinto, at the southern end of Snow Creek Road south of I-10 and SR-111 and southwest of the project site. Residents in these areas are offered views of nearby ridgelines and foothills, a variety of trees and vegetation, the flat valley floor, and existing development, including wind energy facilities that occupy the project area.

Recreationists

The PCT is located immediately adjacent to, and to the north and west of, the project site. The PCT passes through the project area from north to south, and is located immediately west of the project site. Hikers on the PCT are primarily afforded views of surrounding ridgelines and foothills. Existing WTGs and access roads in the project area are visible from various points along the PCT, while existing terrain screens longer views in many locations.

Project Landscape Setting

Scenic Vistas

In general, scenic vistas in the project area are viewpoints that are accessible to the public that provide views of scenic resources, natural landmarks, or prominent or unusual features in the landscape (County of Riverside 2015). For example, area mountains and ridgelines in the region are natural features of high scenic value. Scenic backdrops include hillsides and ridges that rise above urban or rural areas or highways. In particular, the San Bernardino Mountains to the north of the project site and the San Jacinto Mountains to the south of the project site present scenic mountain views, and Mount San Jacinto is the dominant land feature in the region.

Scenic Highways

The County contains three officially designated scenic highways (SR-62, SR-74, and SR-243) and three eligible state scenic highways (SR-71, SR-215, and SR-243). Scenic highways that pass through the project

area include one officially designated state scenic highway, SR-62, and one eligible state scenic highway, SR-111 (Caltrans 2019). SR-62 is located approximately 3.5 miles east of the project site. SR-111 is located over 1 mile south of the project site and extends to the southeast away from the project site (KOP 6, further discussed below, was established on westbound SR-111, approximately 0.8 miles east of Snow Creek Road and approximately 2.7 miles south of the project site). Motorists on SR-62 and SR-111 are provided opportunities for scenic views of the Coachella Valley landscape and surrounding mountainous terrain. In addition, County Eligible Scenic Highways in the project area provide motorists with opportunities for similar scenic views. County Eligible Scenic Highways in the project area include I-10 and Whitewater Canyon Road (County of Riverside 2020a). The portion of I-10 that is a County Eligible Scenic Highway is located approximately 4.1 miles southeast of the project site and extends to the east away from the project site. Whitewater Canyon Road passes through the community of Bonnie Bell from north to south and is located approximately 0.65 miles east of the nearest WTG.

Light and Glare

Existing light and glare in the project area is typical of a rural setting, and consists of indoor and outdoor building lighting emanating from scattered rural residences and small clusters of businesses that front major roadways, street and freeway lighting, and outdoor safety lighting in industrial areas, including safety lighting atop existing WTGs. Existing WTGs in the project area are lit according to FAA standards with red flashing lights atop some WTGs for aviation safety. As such, WTG safety lighting is commonplace in the project region. Potential sources of glare in the project area include metallic surfaces associated with buildings and utility poles.

Visual Quality and Character

Six KOPs were established to evaluate the existing visual quality and character of the project area. These KOPs were selected in consultation with BLM and are representative of the most critical locations from which the project would be visible, based on their usefulness in evaluating existing landscapes and the viewer groups in each location. KOP locations include sensitive residential communities close to the project (Bonnie Bell, Whitewater, and Snow Creek Village); important recreation facilities (PCT); important travel routes (SR-111 and I-10); and more distant communities (Cabazon) with views of the project (refer to Appendix A, Figure H-1, KOP Map, which identifies KOP locations and view directions). These locations provide representative examples of the existing landscape context and viewing conditions for the project area. Photographs of existing views for each KOP are provided in Appendix A, Figures H-2A through H-7A. The following paragraphs describe the landscape setting viewed from each of the six KOPs.

KOP 1 – Bonnie Bell

KOP 1 was established on Whitewater Canyon Road in the residential enclave of Bonnie Bell (refer to Figure H-2A). This KOP was selected because of the high visual sensitivity of this nearby residential area and its proximity to the project site. Viewing to the northwest, this view captures a portion of the southern foothills of the San Bernardino Mountains. The rocky ridge in the center of Figure H-2A is approximately 0.5 miles northwest of Bonnie Bell and borders the easternmost extent of the existing Mesa Wind energy facility on the project site. This area includes a foreground desert community landscape backdropped by rounded, rugged desert hills and curvilinear to angular ridges that support vegetation patterns that range from sparse to patchy clumps to irregular groupings. Grasses and shrubs are of subdued color consisting of tans, browns, and muted greens. The rugged foothills and pronounced ridgelines confine views to the foreground distance zone and provide a backdrop of visual interest. The residential structures comprise geometric forms that appear somewhat weathered and rough-hewn and are partially screened from view by the surrounding trees and vegetation. The resulting overall ***visual quality*** of this foreground view is

considered **moderate**, as the view contains appealing natural features, but is lacking any particularly striking landscape features. The **viewer concern** is considered **high** because residents of Bonnie Bell have long-term views and any change in the view or view blockage of higher-value landscape features (background sky or ridgelines) would be prominently visible. While the number of viewers would be **low**, the duration of views would be **extended** from these static viewing locations. Combining the four equally weighted factors (i.e., visibility, distance zone, number of viewers, and duration of view) results in an overall rating of **moderate to high** for **viewer exposure**. For viewers in the vicinity of KOP 1, combining the equally weighted moderate visual quality, high viewer concern, and moderate to high viewer exposure results in an overall rating of **moderate to high** for **overall visual sensitivity**.

KOP 2 – Whitewater

KOP 2 was established on Haugen-Lehmann Way in the residential community of Whitewater (Figure H-3A). This KOP was selected because of the high visual sensitivity of this nearby residential area and its proximity to the project site. Viewing to the northeast, this view captures a portion of the southern foothills of the San Bernardino Mountains and the dry, rocky alluvial fan where the community of Whitewater is located. The curvilinear ridge in the center of Figure H-3A is approximately 1.25 miles northeast of KOP 2. This area includes a foreground desert residential community landscape of scattered houses, utility lines, and sparse to irregular groupings of arid vegetation of subdued color consisting of tans, browns, and muted greens. The residential structures comprise foreground geometric forms of varying shapes, sizes, and colors. The numerous WTGs of the existing Mesa Wind energy facility and the Alta Mesa wind energy facility are readily visible as skylined vertical features along the ridgeline in the middleground. Their contrasting color, form, and line combined with their collective industrial character substantially compromise the natural character of the ridgeline landscape adjacent to this residential community. As such, the resulting overall **visual quality** of this foreground to middleground view is rated **low to moderate**. The **viewer concern** is considered **high** because residents of Whitewater have long-term views and would consider any alteration or view blockage of higher-value landscape features (background sky or ridgelines) an adverse visual change. Any changes to the view would be highly visible in the foreground/middleground views from Whitewater. While the number of viewers would be **low**, the duration of views would be **extended** from these static viewing locations. Combining the four equally weighted factors (i.e., visibility, distance zone, number of viewers, and duration of view) results in an overall rating of **moderate to high** for **viewer exposure**. For viewers in the vicinity of KOP 2, combining the equally weighted low to moderate visual quality, high viewer concern, and moderate to high viewer exposure results in an overall rating of **moderate to high** for **overall visual sensitivity**.

KOP 3 – Snow Creek Village

KOP 3 was established on northbound Snow Creek Road, just north of the Snow Creek Village residential enclave (refer to Figure H-4A). This KOP was selected because of the high visual sensitivity of this residential area and its unobstructed sightlines to the existing Mesa Wind energy facility. As shown on Figure H-4A, viewing to the north, the panoramic view over the alluvial plain of the eastern portion of San Gorgonio Pass captures a portion of the southern foothills of the San Bernardino Mountains. These angular to horizontal ridges provide a backdrop of visual interest to the foreground flat desert landscape that appears somewhat nondescript and is common in the Western Coachella Valley. The vegetation consists of low-growing grasses and shrubs of subdued color consisting of tans, browns, and muted greens. The vegetation appears patchy to more continuous at distance. The angular to horizontal tan ridge that occupies the center of the image is approximately 3.6 miles north of KOP 3 and is the location of the western portion of the project site. Some of the existing gray lattice-support WTGs and their white rotor blades are visible on the western slopes of the ridge and along the ridgetop. A utility line supported by

rough-hewn wooden poles is prominently visible in the immediate foreground as it parallels Snow Creek Road, while a pair of high-voltage transmission lines supported by large lattice structures are barely discernible crossing the alluvial plain in the middleground. Also visible along the alluvial plain in the middle of the San Gorgonio Pass are the numerous trucks and autos traveling along I-10, as well as scattered buildings and utility support structures. The overall **visual quality** of this foreground to background view is rated **low to moderate**. The **viewer concern** is considered **high** because residents of Snow Creek Village would consider any alteration or view blockage of higher-value landscape features (background sky or ridgelines) an adverse visual change. Any changes to the view of the northern ridgelines in the San Gorgonio Pass would be highly visible from KOP 3. While the number of viewers would be **low**, the duration of views would be **extended** from these static viewing locations. Combining the four equally weighted factors (i.e., visibility, distance zone, number of viewers, and duration of view) results in an overall rating of **moderate** for **viewer exposure**. For viewers in the vicinity of KOP 3, combining the equally weighted low to moderate visual quality, high viewer concern, and moderate viewer exposure results in an overall rating of **moderate** for **overall visual sensitivity**.

KOP 4 – Pacific Crest National Scenic Trail

KOP 4 was established on the PCT, approximately 0.4 miles northwest of the nearest existing WTGs along the ridge to the east (refer to Figure H-5A). This KOP was selected because of the high visual sensitivity of recreationists using the PCT, its location in the southwestern extent of the Sand to Snow National Monument, and its proximity to the proposed project site. As shown on Figure H-5A, the view to the southeast for southbound recreationists on the PCT would be fairly constrained by parallel ridges. Views to the east and southeast down the trail would be dominated by rolling hills covered in scattered vegetation and densely distributed vertical lattice-support legacy WTGs. The simple linear to complex geometric forms and lines of the legacy WTGs create an industrial landscape character in an area that would otherwise be characterized as a rugged desert backcountry landscape. Landforms consist of rolling hills and angular to horizontal rocky ridges with patchy clumps to irregular groupings of shrubs and grasses. Overall natural landscape colors consist of muted earth tones of tan, brown, gray, and green. The resulting overall **visual quality** of this foreground to middleground view is rated **low to moderate**. The **viewer concern** is considered **high** because hikers on the PCT would consider any alteration or view blockage of higher-value landscape features (background sky or ridgelines) an adverse visual change. Any changes to the ridgelines would be highly visible in the foreground/middleground views from the PCT. While the number of viewers would be **low**, the duration of views from the PCT would be **extended**. Combining the four equally weighted factors (i.e., visibility, distance zone, number of viewers, and duration of view) results in an overall rating of **moderate to high** for **viewer exposure**. For viewers on the PCT in the vicinity of KOP 4, combining the equally weighted low to moderate visual quality, high viewer concern, and moderate to high viewer exposure results in an overall rating of **moderate to high** for **overall visual sensitivity**.

KOP 5 – Cabazon and I-10

KOP 5 was established at the Circle K parking lot, adjacent to the Main Street off-ramp from eastbound I-10, approximately 6.3 miles west-southwest of the Mesa Wind energy facility (refer to Figure H-6A). This KOP was selected to be representative of the views of the project site from the community of Cabazon and from I-10. As shown in Figure H-6A, viewing to the east-northeast, the view encompasses primarily an urban freeway landscape of travel lanes, off-ramps, overpasses, and frontage businesses, backdropped by the southeast extent of the San Bernardino Mountains and the distant Mesa Wind legacy WTGs (along with other existing WTGs) on the easternmost ridgelines forming the northern boundary of the San Gorgonio Pass. The angular to horizontal ridges provide a backdrop of some visual interest to the

foreground freeway landscape that typifies the view from KOP 5. The vegetation consists of low-growing grasses and shrubs of subdued color consisting of tans, browns, and muted greens. The vegetation appears patchy to more continuous at a distance along the hillslopes and ridgelines. The existing Mesa Wind WTGs with their lattice support structures are barely distinguishable along the angular to horizontal tan ridges that backdrop the center of the image presented as Figure H-6A. The overall **visual quality** of this foreground to distant background view is rated **low**. The **viewer concern** is also considered **low** because viewers in the vicinity of KOP 5 are unlikely to discern changes in the landscape surrounding the project site given the viewing distance and generally obstructed views of the distant ridgelines by the complex foreground urban freeway landscape. Changes to the landscape in the San Gorgonio Pass would be minimally visible in the background view from the vicinity of KOP 5. While the number of viewers would be **moderate**, the duration of views would range from **brief to extended** depending on the specific viewing location and viewer group (the view from KOP 5 in the parking lot would be brief for the typical visitor). Combining the four equally weighted factors (i.e., visibility, distance zone, number of viewers, and duration of view) results in an overall rating of **low** for **viewer exposure**. For viewers in the vicinity of KOP 5, combining the equally weighted low visual quality, low viewer concern, and low viewer exposure results in an overall rating of **low** for **overall visual sensitivity** of the visual setting and viewing characteristics.

KOP 6 – SR-111

KOP 6 was established on westbound SR-111, approximately 0.8 miles east of Snow Creek Road and approximately 2.7 miles south of the project site (refer to Figure H-7A). This KOP was selected as representative of the available views of the project site from major roads in the area, particularly from a State Eligible Scenic Highway. As shown in Figure H-7A, viewing to the north, the open, panoramic view over the alluvial plain of the eastern portion of the San Gorgonio Pass captures a portion of the southern foothills of the San Bernardino Mountains. These angular to horizontal ridges provide a backdrop of visual interest to the foreground flat desert landscape that appears somewhat nondescript and is common in the Western Coachella Valley. The vegetation consists of low-growing grasses and shrubs of subdued to dark color consisting of tans, browns, and muted to dark greens. The vegetation appears patchy and irregular with some clumps. Existing WTGs of the Mesa Wind energy facility and the Alta Mesa energy facility are visible along the ridgelines in Figure H-7A. The WTGs visible in the center of the image are part of the Alta Mesa energy facility. A pair of high-voltage transmission lines mounted on large lattice structures are partially visible (beyond the green shrubbery), though not visually prominent, in the center of the alluvial plain. The overall **visual quality** of this foreground to background view is rated **low to moderate**, as views from KOP 6 are commonplace in the area and there are no particularly striking landscape features. The **viewer concern** is considered **high** because as a State Eligible Scenic Highway, views along SR-111 are highly valued and any change in the landscape or view blockage of higher-value landscape features (background sky or ridgelines) would be evident. Visual changes to the northern ridgelines in the San Gorgonio Pass would be highly visible in the middleground to background views from SR-111. The number of viewers would be **high**, and the duration of views would be **extended** due to the availability of long sightlines while driving westbound on SR-111. Combining the four equally weighted factors (i.e., visibility, distance zone, number of viewers, and duration of view) results in an overall rating of **moderate to high** for **viewer exposure**. For viewers in the vicinity of KOP 6, combining the equally weighted low to moderate visual quality, high viewer concern, and moderate to high viewer exposure results in an overall rating of **moderate to high** for **overall visual sensitivity**.

Regulatory Background

Federal

Federal Aviation Administration Advisory Circular 70/7460-1M: Obstruction Marking and Lighting

According to Section 2.1, Structures to be Marked and Lighted, of the Federal Aviation Administration (FAA) Advisory Circular (AC) 70/7460-1M (FAA 2020), temporary or permanent structures that exceed an overall height of 200 feet (61 meters) above ground level should normally be marked and/or lighted (FAA 2020). WTGs that exceed an overall height of 200 feet above ground level are typically required to be marked or lighted. While AC 70/7460-1M mentions that marking and/or lighting may be employed to achieve consistency with FAA requirements, lighting is more commonplace than marking in the current WTG development landscape.

Chapter 4, Lighting Guideline, of AC 70/7460-1M details the various lighting systems used to identify structures. Acceptable lighting systems include aviation red obstruction lights (i.e., flashing beacons and/or steady burning lights that operate during the night), medium-intensity flashing white obstruction lights, high-intensity flashing white obstruction lights, and dual lighting (i.e., red lights for nighttime and high-/medium-intensity flashing white lights for daytime and twilight). In addition to operational obstruction lighting systems, obstruction lights during construction are required once the structure exceeds a height of 200 feet above ground level.

State

California Scenic Highway Program

The California Department of Transportation (Caltrans) administers the State Scenic Highway Program to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways (California Streets and Highways Code, Section 260 et seq.). The State Scenic Highway Program includes a list of officially designated highways and highways that are eligible for designation. If a highway is listed as eligible for official designation, it is part of the State Scenic Highway Program, and care must be taken to preserve its eligibility status.

There is an officially designated State Scenic Highway (SR-62) and an Eligible State Scenic Highway (SR-111) in the project area.

Local

The project infrastructure is located entirely on BLM land so is not subject to County land use plans and ordinances. However, local plans were reviewed for informational purposes and to acknowledge the potential for visual changes from viewing locations outside of BLM land.

County of Riverside General Plan

The County of Riverside General Plan contains elements and policies that aim to protect the County's resources, including visual and scenic resources. Such policies are applicable to visual resources and some are specific to wind energy facilities. As such, the following policies were considered in this analysis.

Land Use Element

The following policies of the General Plan Land Use Element (County of Riverside 2020b) are applicable to visual resources:

- LU 14.1 Preserve and protect outstanding scenic vistas and visual features for the enjoyment of the traveling public.
- LU 16.12 Require the design and location of commercial wind energy developments to mitigate visual impacts. Issues which may be included in the review may be, but are not necessarily limited to, the following list, depending on turbine types, densities, and siting:
- a) Color of turbines;
 - b) Location and design of associated facilities such as roads, fencing, non Public Utilities Commission regulated utility lines, substations and maintenance buildings to minimize intrusion or disruption of the landscape;
 - c) Minimizing of disturbed ground and roadway, and restoring of the surface to natural vegetation;
 - d) Prohibition of brand names or advertising associated with wind turbines visible from any scenic highways or key viewpoints;
 - e) Need for interpretation and/or visitors center located at the end of the view shed of turbines.
- LU 16.13 Require design measures for commercial wind energy development on sites near official or eligible State or County Scenic Highways designated (Figure C-9, Circulation Element) by Riverside County, and sites within those areas identified as “critical” and “very critical” by Environment Impact Report No. 158. Issues which may be included in the review may be, but are not necessarily limited to, the following list, depending on turbine types, densities, and siting:
- a) Except in unusual circumstances, no wind turbine will be sited on slopes in excess of 25%; the purpose of this standard is to prevent disturbance and degradation of landforms, and visual scarring by cut and fill, side casting, retaining walls, trenching, and vegetation removal; avoid skyline and ridgeline location.
 - b) Wind turbines should be set back from scenic highways and viewpoints; set back individual turbines far enough from scenic highways and key viewpoints so they do not obscure or overwhelm distinctive skylines; set back large turbines from small important landmarks so that they do not overwhelm the landform.
 - c) Coordinate color schemes for all developments; avoid mixing colors within a particular array unless to subordinate a particular turbine type or to provide safety markings; limit use of color patterns as accent for key clusters or individual turbines; consider aviation safety coloration and lighting as may be required by the FAA.
- LU 26.3 Ensure that development does not adversely impact the open space and rural character of the surrounding area.

Multipurpose Open Space Element

The following policies of the General Plan Multipurpose Open Space Element (County of Riverside 2015) are applicable to visual resources:

- OS 21.1 Identify and conserve the skylines, view corridors, and outstanding scenic vistas within Riverside County.
- OS 22.1 Design developments within designated scenic highway corridors to balance the objectives of maintaining scenic resources with accommodating compatible land uses.

Riverside County Code

Permits for Wind Energy Conversion Systems (WECS) are addressed in Chapter 17.224 of the Riverside County Code. Standards and development criteria are established in Section 17.224.040. For example, no commercial WECS shall be located within 0.25 miles of a State or County Eligible or Designated Scenic Highway; within 1.25 × total WECS height from an aboveground transmission line of more than 12 kilovolts or from a public road, and within 3 × total WECS height (or 500 feet, whichever is greater) of the lot line of any lot containing a habitable dwelling. Regarding height limits, commercial WECS or a WECS array shall conform to the height limits of the zoning classification in which it is located.

The project site is zoned W-E (Wind Energy Resource). In the W-E zone, no commercial WECS shall exceed 500 feet in height.

Western Coachella Valley Area Plan

The Western Coachella Valley Area Plan (County of Riverside 2019) contains policies that guide the physical development and land uses in the unincorporated western portion of the Coachella Valley. According to the area plan, the Western Coachella Valley area is characterized by a vast network of natural open space with tremendous habitat, rural, and scenic value for both local residents and the region at large. Furthermore, the Western Coachella Valley is characterized by a variety of contrasting and dramatic geographic features, including the rugged San Jacinto, Santa Rosa, and Little San Bernardino Mountains and low-lying desert flatlands, sloping dunes, and rolling foothills.

The following policies of the Western Coachella Valley Area Plan (County of Riverside 2019) are applicable to visual resources:

- WCVAP 16.1 Where outdoor lighting is proposed, require the inclusion of outdoor lighting features that would minimize the effects on the nighttime sky and wildlife habitat areas.
- WCVAP 16.2 Adhere to the lighting requirements of the Riverside County Ordinance Regulating Light Pollution for standards that are intended to limit light leakage and spillage that may interfere with the operations of the Palomar Observatory.
- WCVAP 19.1 Protect the scenic highways in the Western Coachella Valley from change that would diminish the aesthetic value of adjacent properties in accordance with policies in the Scenic Corridors sections of the Land Use, Multipurpose Open Space, and Circulation Elements.

Ordinance No. 655: An Ordinance of the County of Riverside Regulating Light Pollution

The intent of Ordinance No. 655 is to restrict the permitted use of certain light fixtures emitting into the night sky undesirable light rays that have a detrimental effect on astronomical observation and research. Ordinance No. 655 establishes two zones (Zone A and Zone B) that are based on proximity to the Palomar

Observatory and create lamp type and shielding requirements for Class I, II, and III lighting installed on properties. The various classes of lighting are defined as follows:

- **Class I lighting** means all outdoor lighting used for, but not limited to, outdoor sales or eating areas, assembly or repair area, outdoor advertising displays and other signs, recreational facilities and other similar applications when color rendition is important.
- **Class II lighting** means all outdoor lighting used for but not limited to illumination for walkways, private roadways and streets, equipment yards, parking lot and outdoor security.
- **Class III lighting** means that lighting not needed for Class I or Class II purposes and used for decorative effects. Examples of Class III lighting include, but are not limited to, the illumination of flag poles, trees, fountains, statuary, and building walls.

The project site is located less than 45 miles from the Palomar Observatory. Therefore, the project site is located in Zone B. For Class II lighting in Zone B, low-pressure sodium lamps are allowed, and lamps above 4,050 lumens are prohibited. In addition, all Class II lighting in Zone B may remain on all night.

Applicant Proposed Measures

The following Applicant Proposed Measure (APM) would minimize lighting impacts, and where applicable, is referenced in the impact analysis section below. The full text of the APM is provided in Section 3.4, Biological Resources.

APM BIO-5 Wildlife Protection (refer to Section 3.4 for full text of APM).

3.1.2 Impact Analysis

a. Would the project have a substantial adverse effect on a scenic vista?

LESS THAN SIGNIFICANT IMPACT. A scenic vista is generally considered a specific viewpoint or viewing location that is accessible to the public and provides views of scenic resources, natural landmarks, or prominent or unusual features in the landscape (County of Riverside 2015). Scenic vistas are generally officially designated by public agencies and are accessible to the public for the express purposes of viewing and sightseeing. The County General Plan indicates that scenic vistas are considered valued views of the landscape, including area mountains and ridgelines that provide backdrops to urban or rural areas or highways (County of Riverside 2015). In particular, views of the Coachella Valley, San Bernardino Mountains, and San Jacinto Mountains, including views of Mount San Jacinto, are considered valued scenic resources that provide scenic vistas from public viewing locations. For instance, motorists on SR-62, SR-111, I-10, and local roads are provided opportunities for scenic views of the Coachella Valley landscape and surrounding mountainous terrain. As viewed from these public roads, due to the location of the project site and the setbacks of new WTGs from public viewing locations, the new WTGs would not result in new blockage of the surrounding mountains or valley landscape. Furthermore, because modern WTGs are a familiar element in the existing viewshed, the project would not have a substantial effect upon a scenic vista as viewed from public roadways.

Regarding recreational receptors in the project area, the visual landscape throughout the project area has been previously altered by existing commercial wind energy facilities (including the WTGs currently located on and adjacent to the project site). As such, large WTGs are commonplace elements in the trail and recreational experience in the project area.

While some elements of the project (e.g., blades of WTGs) would be visible from residential properties in the Bonnie Bell area to the southeast of the project site, the higher-elevation terrain between the project site and Bonnie Bell, as well as tall and dense vegetation within and adjacent to the Whitewater River floodplain, largely obscure views of the site (refer to Figure H-2B). Furthermore, private yard landscaping also aids in the screening of the project site from residential properties in Bonnie Bell. The new WTGs on the project site would be set back from the rocky and mountainous horizontal ridgeline that rises to the east above Bonnie Bell and Whitewater Canyon and would be partially obscured from view.

Similarly, for residents living in the Whitewater area, although the massing and scale of the new WTGs would be noticeably larger than the existing WTGs on the project site, the new WTGs would generally display a similar massing and scale as other modern WTGs in the project area. Specifically, large modern WTGs dot the landscape east of the project site and are visible from Painted Hills Road. As a result, the anticipated massing and scale contrast between the existing WTGs on the project site and the new WTGs would be tempered by the presence of existing modern WTGs in the project area.

Overall, the new WTGs would not substantially obstruct or interrupt existing views to mountain peaks available to motorists, residents, or recreationists from public vantage points and would not substantially damage scenic resources or obstruct any prominent scenic vista or view open to the public. Although there are expansive views of the project area and surrounding landscape from public roads, nearby residential enclaves, and the PCT, there are no County-designated or community-recognized scenic vista viewpoints in the immediate project area. Therefore, the project would result in a less than significant impact to scenic vistas.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

LESS THAN SIGNIFICANT IMPACT. There is one State Designated Scenic Highway in the project area, SR-62, which is located approximately 3.5 miles to the east of the project site. Currently, views from SR-62 consist of expansive views across the Coachella Valley, which is dotted with shrubby vegetation, and the surrounding mountain ranges that serve as a visual backdrop to the valley floor. Multiple existing wind energy facilities are visible from SR-62 to the east and west, including WTGs of varying sizes and styles (e.g., older lattice-structure WTGs as well as large modern WTGs similar to those proposed for the project). Other energy facilities, such as solar energy facilities and transmission lines, are also visible from SR-62. Due to intervening terrain, development, and existing WTGs, the proposed project would not be readily discernible in the landscape, nor would it disrupt existing views. Although it is possible that project WTGs would be visible from portions of SR-62, the view direction would be to the east, approximately 90° off the primary directions of travel (north and south). Motorists' views would primarily be focused on the road to the north and south, and project WTGs would be beyond the primary direction of view for travelers. Additionally, the WTGs would be visible within the context of numerous existing transmission lines and WTGs located between SR-62 and the project site. To the extent that any of the proposed WTGs are noticed by travelers on SR-62, the impact on views would be brief and inconsequential. Furthermore, installation of the new WTGs across the project site would not result in damage to trees, rock outcroppings, or historic structures, as these features are not located within proposed areas of disturbance on the project site.

There is one State Eligible Scenic Highway in the project area, SR-111, which is located more than 1 mile south of the project site and extends to the southeast away from the project site. Views from SR-111 consist of expansive views across the Coachella Valley, which is covered in scattered shrubby vegetation, rolling foothills, and rugged, rocky ridgelines that rise abruptly from the valley floor. Existing energy facilities traverse the valley floor, including transmission lines mounted on lattice-structure and wooden-

pole towers, as well as WTGs along the valley floor and atop the ridgeline to the north (refer to Figure H-6A). The installation of up to eight new WTGs on the project site would not substantially alter views or damage scenic resources visible from SR-111.

County Eligible Scenic Highways in the project area include I-10 and Whitewater Canyon Road (County of Riverside 2020a). The portion of I-10 that is a County Eligible Scenic Highway is located east of SR-62, more than 4 miles southeast of the project site. Views from I-10 consist of views across the expansive valley floor, surrounding foothills, and mountainous terrain that rises above the valley. Existing transmission lines and WTGs are scattered throughout the valley floor and are highly visible from the roadway. Views from Whitewater Canyon Road are largely enclosed by surrounding terrain, which consists of rolling foothills and jagged ridgelines. In locations where longer views are afforded, existing transmission lines and WTGs are visible. As such, views of existing transmission lines and WTGs are commonplace along each of these roads. The proposed project would not result in substantially altered views from either County Eligible Scenic Highway.

The project area is currently developed with several energy facilities and WTGs. Due to distance, intervening terrain, and existing energy development, the project site is partially obstructed from view and is not in the direct line of sight of motorists traveling on scenic highways. Furthermore, since views of energy facilities, including WTGs, are commonplace from these roads, development of the proposed project would not result in substantially altered views or increase view blockage from scenic highways. Therefore, installation of the proposed project would not substantially alter views or damage scenic resources within a State Designated or Eligible Scenic Highway or locally designated scenic highways, and impacts would be less than significant.

c. In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from [a] publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Methodology

California Public Resources Code Section 21071 defines an “urbanized area” as “(a) an incorporated city that meets either of the following criteria: (1) Has a population of at least 100,000 persons, or (2) Has a population of less than 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000 persons.” Given that the project site is not located in an incorporated city and is located on federal land surrounding by rural areas of low population, the project area is considered non-urbanized. As such, the following analysis focuses on whether the project would degrade the existing visual character or quality of public views of the site and its surroundings. Furthermore, consistent with the BLM Visual Resource Management methodology presented in Appendix A, this aesthetics analysis uses the Visual Sensitivity – Visual Change (VS-VC) methodology to assess the visual effects of the proposed project on the existing landscape. Under the VS-VC system, overall visual change is determined at each KOP based on an assessment and equal weighting of project-induced visual contrast, project dominance, and view blockage (or view impairment) and an evaluation of a visual simulation of the project. Project-induced visual change could result from aboveground facilities, vegetation removal, landform modification, component size or scale relative to existing landscape characteristics, and the placement of project components relative to developed features. The experience of visual change can also be affected by the degree of available screening by vegetation, landforms, and/or structures; distance from the observers; atmospheric conditions; and angle of view. Each of the key factors contributing to visual change is discussed below.

Visual Contrast describes the degree to which a project's visual characteristics or elements (consisting of form, line, color, and texture) differ from the corresponding visual elements established in the existing landscape. The degree of contrast can range from low to high. The presence of forms, lines, colors, and textures in the landscape similar to those of a proposed project's indicates a landscape more capable of accepting those project characteristics than a landscape where those elements are absent.

Project Dominance is a measure of a feature's apparent size relative to other visible landscape features and the total field of view. A feature's dominance is affected by its relative location in the field of view and the distance between the viewer and the feature. The level of dominance can range from subordinate to dominant and, in effect, is a measure of the degree to which the feature demands the attention of the casual observer.

View Blockage or Impairment describes the extent to which any previously visible landscape features are blocked from view as a result of a project's scale and/or position. Blockage of higher-quality landscape features by lower-quality project features causes adverse visual impacts. This is particularly true with respect to scenic view obstruction, which refers to the degree to which a project would block or intrude upon scenic view corridors, particularly those identified in public policies. The degree of view blockage can range from none to high.

Overall Visual Change is a concluding assessment as to the degree of change that would be caused by a project. Overall visual change is derived by combining the three equally weighted factors of visual contrast, project dominance, and view blockage, and can range from low to high. In some cases, however, where view blockage is reduced by a project, overall visual change may be improved.

Overall visual change is then considered within the context of the determined overall visual sensitivity of the existing landscape and viewing dynamics (discussed in Section 3.1.1), and an impact significance conclusion can be made. It is reasonable to conclude that lower visual sensitivity ratings paired with lower visual change ratings will generally correlate with lower degrees of impact significance when viewed in the field. Conversely, higher visual sensitivity ratings paired with higher visual change ratings will tend to result in higher degrees of visual impact.

Analysis

Construction

LESS THAN SIGNIFICANT IMPACT. Construction of the project would result in the visible intrusion of equipment, materials, vehicles, and construction activities on site. Access roads, construction staging areas, and laydown yards would potentially exhibit color and line contrasts created by graded and/or disturbed soil, gravel surfaces, and unnatural lines of demarcation, which could potentially persist over a longer period of time given the arid nature of the landscape and the likely slow recovery of vegetation. On-site access roads would be improved and/or widened up to 24 feet, with some areas widened up to 40 feet for an appropriate turning radius. Imported weed-free gravel would be placed up to 8 inches deep over compacted native material on some roads. Gravel would be locally sourced in an effort to ensure that colors would be consistent with the existing landscape. Furthermore, under existing conditions, access roads traverse the area providing access to the existing WTGs on site, as well as several surrounding wind energy facilities. As such, the lines and cleared areas created by project construction would be consistent with existing conditions.

There would be a noticeable increase in traffic along local roads in the community of Whitewater, including Rockview Drive, Cottonwood Drive, and Haugen-Lehmann Way. Traffic would typically consist of workers accessing the site, construction vehicles and equipment, and trucks used to transport large loads.

Although the increase in traffic would be noticeable from within the residential communities, the duration of the effects would be short term. Traffic would also increase along I-10, but with the existing high traffic volumes on I-10, the contribution would be minimally noticeable. Similar construction equipment and traffic impacts would occur during decommissioning of the proposed project.

Overall, the presence of construction personnel, equipment, and vehicles would constitute a temporary alteration in the visual environment. Furthermore, due to the industrial nature of much of the surrounding landscape, construction activities on the project site would not strongly contrast with the existing landscape. Therefore, impacts associated with project construction and decommissioning would be less than significant.

Operation

The most visible aspect of the project would be the addition of eight new, larger, WTGs to the project site. The new WTGs would be up to 492 feet in height. Other, less visible project features would include the proposed meteorological (met) tower, which would be up to 263 feet (80.1 meters) tall; improved access roads; an upgraded Mesa Wind Substation, which is likely to fit within the existing substation fence line; and ancillary facilities. Operation and maintenance of the proposed project would result in altered views of the site from public vantage points. Therefore, the potential changes to the visual character and quality of the site has been addressed from each KOP, as further discussed below.

KOP 1 – Bonnie Bell

Figure H-2A presents the existing view from KOP 1 on Whitewater Canyon Road in the residential community of Bonnie Bell. As discussed in Section 3.1.1, the view from KOP is considered to have moderate to high visual sensitivity. Figure H-2B shows that three WTGs would be partially visible extending above the ridgeline as viewed from KOP 1. The WTGs would be partially screened by terrain when viewed from KOP 1, and only the rotor (blade) tips would be visible. The industrial character that would be added to the scene by the structural characteristics of the WTGs would result in a low to moderate degree of contrast with the natural landforms and nearby residential structures with respect to the design elements of form, line, color, and texture. A low degree of contrast would result for the element of color, with the white color and shadow gray of the WTGs exhibiting little contrast with the light-gray surfaces of exposed rock on the rugged hill slopes. The smooth WTG surfaces would cause a moderate degree of contrast with the coarser natural landscape textures of the rocky slopes, ridges, and vegetation but a low degree of contrast with some of the smoother elements of the nearby residential structures. The project would appear subordinate in scale compared to the surrounding landforms, and while noticeable, the three WTGs would not be visually prominent in the field of view from KOP 1 and Bonnie Bell. Views of the WTGs would be similar to views of the existing WTGs in the San Geronio Pass area (to the south and east) that are somewhat visible from Bonnie Bell. The proposed WTGs would not block terrain or particularly striking landscape features from view but would result in relatively limited view blockage of the background sky. As such, view blockage is rated low to moderate. Combining the equally weighted low to moderate visual contrast, subordinate project dominance, and low to moderate view blockage results in a low to moderate rating for overall visual change, which in the context of the existing landscape's moderate to high visual sensitivity, would result in a less than significant impact on the existing visual character and quality of public views from KOP 1.

KOP 2 – Whitewater

Figure H-3A presents the existing view from KOP 2 on Haugen-Lehmann Way in the residential community of Whitewater. As discussed in Section 3.1.1, the view from KOP 2 is considered to have a moderate to high visual sensitivity. The view presented in Figure H-3B presents a visual simulation that depicts the

removal of numerous existing (and smaller) WTGs and the addition of two larger WTGs along the ridgeline closest to the community. As shown in the simulation, the new WTGs would be visually prominent vertical built structures introduced into a landscape lacking structures of similar scale. However, numerous other existing WTGs (along ridgelines farther to the east) are also visible from KOP 2, though they appear less prominent due to smaller scale and greater viewing distance (approximately 1.6 to 2.0 miles). Nonetheless, the proliferation of these numerous existing WTGs along the ridgelines establishes a more industrial character to the otherwise natural appearance of the hilltop landscapes.

The linear and vertical structural characteristics of the proposed WTGs would result in a moderate to high degree of contrast (in terms of form and line) with the rounded to horizontal natural landforms but a low degree of contrast relative to the substantial structural characteristics established by the numerous, existing WTGs that proliferate along the ridgeline. Therefore, the overall form and line contrast is rated low to moderate. A moderate degree of contrast would result for the element of color, with the white color and gray shadowing of the WTGs contrasting with the muted earth tones of the natural landscape features. However, the WTG color would appear consistent with the color already established in the landscape by the numerous existing and adjacent WTGs. The smooth WTG surfaces would result in a moderate degree of contrast with the coarser natural landscape textures of the rocky slopes and ridges, and vegetation, and a low degree of contrast with the smooth structural surfaces of the numerous existing WTGs. The resulting overall visual contrast is rated low to moderate.

The project would appear co-dominant in scale, comparable to the surrounding landforms and the relatively limited view blockage of the background sky is rated low, given the reduction of view blockage that accompanies the removal of the existing WTGs. Combining the equally weighted low to moderate visual contrast, co-dominant project dominance, and low view blockage results in a low to moderate rating for overall visual change. In the context of the existing landscape's moderate to high visual sensitivity, the project would result in a less than significant impact on the existing visual character and quality of public views from KOP 2.

KOP 3 – Snow Creek Village

Figure H-4A presents the existing view from KOP 3 on Snow Creek Road just north of the Snow Creek Village residential enclave. As discussed in Section 3.11, the view from KOP 3 is considered to have a moderate visual sensitivity. Figure H-4B presents a visual simulation that depicts the removal of numerous existing (and smaller) WTGs and the addition of two larger WTGs. As shown in the simulation, the two proposed WTGs would be visually prominent, vertical, built structures introduced into a landscape with similar structural features but lacking the scale of the proposed WTGs. The proliferation of the numerous existing WTGs along the ridgeline in the center of the image establishes an apparent industrial character and structural clutter in an otherwise natural appearing hilltop landscape.

The linear and vertical structural characteristics of the proposed WTGs would result in a moderate degree of contrast (in terms of form and line) with the rounded to horizontal natural landforms, but a low degree of contrast relative to the numerous existing WTGs situated along the adjacent ridgelines. Therefore, an overall low to moderate degree of contrast would result from the proposed WTGs with respect to the design elements of form and line. A low to moderate degree of contrast would result for the element of color, with the white color of the WTGs contrasting with the muted earth tones of the natural landscape features. However, the proposed WTGs would appear consistent with the color already established in the landscape by the smaller WTGs being replaced and the WTGs associated with the adjacent wind energy facility to the east (as shown in Figure H-4B). The smooth WTG surfaces would result in a moderate degree of contrast with the coarser natural landscape textures of the rocky slopes, ridges, and vegetation, and a

low degree of contrast with the smooth structural surfaces established by the numerous existing WTGs. The overall visual contrast is rated low to moderate.

At a viewing distance ranging from approximately 3.3 to 4.4 miles, the proposed WTGs that would be visible from KOP 3 would be centrally located in the field of view and would appear subordinate to co-dominant in scale compared to the surrounding foothills and co-dominant to dominant relative to the existing smaller but more numerous WTGs. Overall, project dominance is rated co-dominant.

View blockage of the background mountains and sky would be low, given the reduction of view blockage that would accompany the removal of the existing WTGs. Combining the equally weighted low to moderate visual contrast, co-dominant project dominance, and low view blockage results in a low to moderate rating for overall visual change. In the context of the existing landscape's moderate visual sensitivity, the project would result in a less than significant impact on the existing visual character and quality of public views from KOP 3.

KOP 4 – Pacific Crest National Scenic Trail

Figure H-5A presents the existing view to the southeast from KOP 4 on the PCT, approximately 0.4 miles northwest of the nearest existing WTGs shown in the figure. As discussed in Section 3.1.1, the view from KOP 4 is considered to have moderate to high visual sensitivity. Figure H-5B presents a visual simulation that depicts the removal of the numerous existing lattice-tower WTGs and installation of the much larger, but substantially fewer, WTGs along the ridges east and southeast of the PCT. Views from the PCT would essentially be static given the slow rate of travel along the trail, offering extended view durations of the project features. As shown in the simulation, the WTGs would appear as visually prominent, vertical, built structures replacing the many smaller, more structurally complex lattice support WTGs that combine to create a landscape with considerable industrial character. Although the proposed WTGs would skyline more and appear substantially larger than the existing WTGs, the overall industrial character, structural complexity, and number of visible WTGs would be substantially reduced along the ridgelines.

The simple linear, vertical, structural characteristics of the WTGs would cause a low to moderate degree of contrast with both the existing smaller structures (low contrast) and rounded, curvilinear to horizontal landforms (moderate contrast) with respect to the design element of form. Line contrast would be low to moderate given the prevalence of both vertical structural lines and curvilinear to horizontal landscape lines. Due to the greater mass of the proposed WTGs, the white color (if not in shadow) would appear brighter and more prominent relative to the white color of the adjacent tubular support WTGs (beyond the frame of view in Figures H-5A and H-5B). The resulting visual contrast for color would be low to moderate compared to the existing built structures and the muted earth tones of the natural landscape features. The smooth WTG surfaces would cause a low to moderate degree of contrast with the existing structures (low contrast) and the coarser natural landscape textures of the rocky slopes and ridges and vegetation (moderate contrast). The overall visual contrast is rated low to moderate.

At a viewing distance ranging from approximately 0.4 to 1.3 miles, the proposed WTGs would be centrally located in the field of view from KOP 4, and the project would appear co-dominant in scale compared to the surrounding landforms. The relatively limited view blockage of the background sky that would occur is rated low, given the substantial reduction of view blockage that would accompany the removal of the existing WTGs. As a result of the existing developed context of the site and the reduction in industrial character and structural complexity that would accompany project implementation, the existing character of the landscape would be retained, and the proposed WTGs would not substantially degrade the existing visual character and quality of the landscape as viewed from KOP 4 and similar locations along the PCT.

Combining the equally weighted low to moderate visual contrast, co-dominant project dominance, and low view blockage results in a low to moderate rating for overall visual change. In the context of the existing landscape's moderate to high visual sensitivity, the project would result in a less than significant impact on the existing visual character and quality of public views from KOP 4.

KOP 5 – Cabazon and I-10

Figure H-6A presents the existing view from KOP 5 in Cabazon at the Circle K parking lot, adjacent to the Main Street off-ramp from I-10. As discussed in Section 3.1.1, the view from KOP 5 has low visual sensitivity. Figure H-6B presents a visual simulation that depicts the removal of the numerous existing (and smaller) WTGs and the installation of several larger WTGs (some partially screened by terrain). As shown in the simulation, the vertical support towers would be most noticeable when backdropped by terrain and less so when backdropped by sky. Regardless, given the greater viewing distance from KOP 5 (ranging from 6.3 to 7.8 miles), and in the context of the foreground to middleground freeway corridor landscape features, the proposed WTGs would be minimally noticeable. The removal of the numerous existing WTGs would be less visually consequential (less visually beneficial) due to their limited visibility from Cabazon.

As a result, the linear and vertical structural characteristics of the proposed WTGs would result in a low degree of contrast (in terms of form and line) with the rounded to horizontal natural landforms and angular to curvilinear ridgeline. A low degree of contrast would also result with respect to the element of color, with the white color of the WTGs contrasting somewhat with the muted earth tones of the background ridges but much less so with the background sky. At this more extended viewing distance and limited discernibility, the smooth WTG surfaces would result in only a low degree of contrast with the coarser natural landscape textures of the rocky slopes, ridges, and vegetation, and would result in a low degree of contrast with the smooth structural surfaces established by the numerous existing WTGs. Therefore, the overall visual contrast is rated low.

The project would appear subordinate in scale compared to the surrounding landforms and the foreground to middleground landscape features visible from KOP 5. View blockage of the background ridge and sky would also appear low given the considerable viewing distance. Combining the equally weighted low visual contrast, subordinate project dominance, and low view blockage results in a low rating for overall visual change. In the context of the existing landscape's low visual sensitivity, the project would result in a less than significant impact on the existing visual character and quality of public views from KOP 5.

KOP 6 – SR-111

Figure H-7A presents the existing view from KOP 6 on SR-111, approximately 0.8 miles east of Snow Creek Road. As discussed in Section 3.1.1, the view from KOP 6 is considered to have high visual sensitivity. Figure H-7B presents a visual simulation that depicts the removal of numerous existing smaller WTGs (left side of image) and the addition of two larger WTGs. While views from SR-111 would be transitory due to the quick speed of travel, the distance to the project site would allow for extended view durations of the project features. As shown in the simulation, two of the eight proposed WTGs would be visible from KOP 6 and would appear as visually prominent, vertical, built structures introduced into a landscape with similar structural features but lacking the large scale of the proposed WTGs. The proliferation of the numerous existing WTGs along the ridgeline in the center of the image establishes an apparent industrial character and structural clutter in an otherwise natural-appearing hilltop landscape.

Although the linear and vertical structural characteristics of the proposed WTGs would result in a moderate degree of contrast (in terms of form and line) with the rounded to horizontal natural landforms, the proposed WTGs would be consistent with the numerous existing WTGs situated along the adjacent ridgelines. Therefore, the overall form and line contrast would be low to moderate. A moderate to high degree of contrast would result for the element of color, with the white color of the WTGs contrasting with the muted earth tones of the background natural landscape features, although they would appear more consistent with the color already established in the landscape by the smaller WTGs being replaced and with the WTGs associated with the adjacent wind energy facility to the east (as shown on Figure H-7B). The smooth WTG surfaces would result in a low to moderate degree of contrast with the coarser natural landscape textures of the rocky slopes, ridges, and vegetation, and a low degree of contrast with the smooth structural surfaces established by the numerous existing WTGs. Therefore, the overall visual contrast is rated low to moderate.

At a viewing distance of approximately 2.7 miles, the proposed WTGs that would be visible from KOP 6 would be noticeable in the field of view and would appear subordinate to co-dominant in scale compared to the surrounding foothills and co-dominant to dominant in scale compared to the existing smaller WTGs. Overall project dominance is rated co-dominant. View blockage of the background mountains and sky would be low to moderate given the slight reduction of view blockage that would accompany the removal of the existing WTGs.

Combining the equally weighted low to moderate visual contrast, co-dominant project dominance, and low to moderate view blockage results in a low to moderate rating for overall visual change. In the context of the existing landscape's high visual sensitivity, this would typically result in a potentially significant impact. However, because the view from SR-111, in general, and KOP 6, in particular, would be tempered by the removal of the existing Mesa Wind WTGs and the presence (structural context) of the adjacent WTGs from another wind energy facility, the resulting impacts relating to degradation of visual character or quality of views from KOP 6 would be less than significant.

Summary

Due to the presence of numerous existing WTGs and other energy development in the project area, the proposed project would not result in a strong degree of contrast from existing conditions. Likewise, the project would not result in increased view blockage of particularly striking landscape features or valued scenic resources. The overall visual change that would result from the relatively larger WTGs would be considered low to moderate. In the context of the existing industrial characteristics of the landscape, the proposed project would not substantially degrade the existing visual character of the site or quality of public views, and impacts would be less than significant.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

LESS THAN SIGNIFICANT IMPACT. Due to their proposed height, the new WTGs and the new met tower proposed on the project site would be affixed with FAA obstruction lighting. The obstruction lights would alert aircraft pilots to the presence of particularly tall objects on the project site. Acceptable lighting systems include aviation red obstruction lights (i.e., flashing beacons and/or steady burning lights that operate during the night), medium-intensity flashing white obstruction lights, high-intensity flashing white obstruction lights, and dual lighting (i.e., red lights for nighttime and high-/medium-intensity flashing white lights for daytime and twilight). In addition to operational obstruction lighting systems, obstruction lights during construction are required once the structure exceeds a height of 200 feet above ground level. FAA hazard lighting mounted on the proposed project's WTGs would be visible from within the greater

San Gorgonio Pass area. The FAA issued a Determination of No Hazard to Air Navigation for the proposed WTGs and met tower, and it is anticipated that all eight of the new WTGs and the proposed met tower would be affixed with FAA obstruction lighting. Project-specific requirements would be developed in conjunction with the FAA.

Obstruction lighting would be a regular source of nighttime lighting in the area that could be perceptible at nearby residences, the closest of which is located approximately 3,450 feet from the nearest proposed WTG on the project site. For the three nearest communities, FAA lighting would introduce new red lights on the ridgeline. While obstruction lighting would operate near residential uses, existing WTGs are prevalent in the project area, along the I-10 corridor, and along the southern segment of the SR-62 corridor. As such, project lighting would be consistent with the existing lighting that occurs throughout the project area. The San Gorgonio Pass nighttime lighting landscape includes substantial lighting within the I-10 travel corridor (vehicles and billboards), local street and scattered residential lighting, and the numerous FAA hazard lights mounted on numerous WTGs and transmission structures throughout the project region. For views that are farther from the project site, including sensitive recreational areas such as the PCT or Mount San Jacinto, the existing night-lighting context would diminish the project's incremental contribution to any perceived red light reflectance such that it is not expected to be substantially noticeable. This would be true throughout the year, including times when Mount San Jacinto or other areas are covered in snow.

Because existing WTGs located near the project site include FAA-required obstruction lights, the addition of the new WTGs with obstruction lights would not represent a new, previously unrepresented source of nighttime lighting in the project area. Furthermore, the proposed project would include preparation of a lighting plan that would be submitted to BLM for approval. Additionally, APM BIO-5 (Wildlife Protection; see Section 3.4.1, under Applicant Proposed Measures) would minimize lighting impacts such that night lighting would be designed, installed, and maintained to prevent side casting of light. Therefore, impacts associated with new sources of substantial light or glare would be less than significant.

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3.2 Agriculture and Forestry Resources

AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

3.2.1 Setting

The project region is characterized by open desert expanses and mountainous terrain, along with extensive areas of urban development and isolated pockets of rural residential development. According to the Western Coachella Valley Area Plan Land Use map, the zoning in the project area is Open Space Rural and Open Space Conservation Habitat. The project site is developed as a wind energy facility, designated as “Other Land” by the California Department of Conservation Farmland Mapping and Monitoring Program (CDOC 2016). No Prime Farmland, Unique Farmland, or Farmland of Statewide Importance occurs within the project site and no adjacent properties are zoned for agricultural use. The project site is not under a Williamson Act contract. There is no designated forest land or timberland within the proposed project footprint or immediate vicinity.

Regulatory Background

Federal

Farmland Protection Policy Act

The Natural Resources Conservation Service, a federal agency within the U.S. Department of Agriculture, is the agency primarily responsible for implementation of the Farmland Protection Policy Act, passed by Congress in 1981 (7 USC 4201 and 7 CFR Ch. VI Part 658). The purpose of the Farmland Protection Policy Act is to minimize federal programs' contribution to the conversion of farmland to non-agricultural uses by ensuring that federal programs are administered in a manner that is compatible with state, local, and private programs designed to protect farmland. The Natural Resources Conservation Service provides technical assistance to federal agencies, state and local governments, Tribes, or nonprofit organizations that desire to develop farmland protection programs and policies. The Farmland Protection Policy Act also established the Farmland Protection Program and Land Evaluation and Site Assessment.

State

Land Conservation Act of 1965 (Williamson Act)

The Williamson Act is intended to help preserve farmland. In creating the Williamson Act, the legislature noted that "the preservation of the maximum amount of the limited supply of agricultural land is necessary to the conservation of the State's economic resources, and is necessary not only to the maintenance of the agricultural economy of the State, but also for the assurance of adequate, healthful and nutritious food for future residents of this State and nation" (California Government Code Section 51220). The Williamson Act enables participating local governments to enter into land conservation contracts with private landowners. Williamson Act contracts restrict specific parcels of land to agricultural and open space uses for a minimum term of 10 years in return for reduced property tax assessments. The Williamson Act program is locally administered by counties (and some cities) to ensure compliance with the Williamson Act (California Government Code Sections 51200–51207), local uniform rules, and individual contracts (CDOC 2019). The California Department of Conservation provides guidance and oversight to local governments to ensure consistency with the government code.

Farmland Mapping and Monitoring Program

The California Department of Conservation established the Farmland Mapping and Monitoring Program in 1982 to identify important agricultural lands and track the conversion of agricultural land to other uses (7 USC 4201 and 7 CFR Chapter VI, Part 658). Through the Farmland Mapping and Monitoring Program, the California Department of Conservation maintains statewide maps of agricultural lands.

The list below includes the agricultural categories mapped by the California Department of Conservation:

- **Prime Farmland.** Farmland that has the best combination of physical and chemical features able to sustain long-term agricultural production. Land must have been used for irrigated agricultural production at some time during the 4 years prior to the mapping date.
- **Farmland of Statewide Importance.** Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture.
- **Unique Farmland.** Farmland of lesser quality soils used for the production of the state's leading agricultural crops. Land must have been cropped at some time during the 4 years prior to the mapping date.

- **Farmland of Local Importance.** Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.
- **Grazing Land.** Land on which the existing vegetation is suited to the grazing of livestock. Collectively, lands classified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance are referred to as "Important Farmland." Other Land is that which is not included in any of the other mapping categories.

Local

Local regulations associated with agriculture and forestry resources are not applicable to the proposed project.

Applicant Proposed Measures

No Applicant Proposed Measures or other measures regarding agriculture and forestry resources are required.

3.2.2 Impact Analysis

a. *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as Shown on the Maps Prepared Pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

NO IMPACT. The project site is not located on or adjacent to any lands identified as being important for agriculture. The project site currently contains 460 legacy wind turbine generators and would continue to support a commercial wind energy facility after construction. Construction, operation, and decommissioning of the proposed project would not convert any type of farmland to non-agricultural use because there is no farmland or agricultural use in the project area. Therefore, there would be no impact.

b. *Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?*

NO IMPACT. The Western Coachella Valley Area Plan Land Use Plan (County of Riverside 2019, Figure 3) shows the project site as being in or adjacent to Conservation Habitat and Open Space Rural land use designations. The project site is not zoned for agriculture use and does not have a Williamson Act contract; therefore, there would be no impact.

c. *Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?*

NO IMPACT. The project site is currently used as a commercial wind energy facility. The project is not zoned for forest land, timberland, or timberland zoned Timberland Production. The proposed project does not include or require uses or facilities that would otherwise potentially affect properties zoned for forest land, timberland, or timberland zoned Timberland Production. On this basis, the proposed project would have no potential to conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production; therefore, there would be no impact.

d. *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*

NO IMPACT. There is no forest land in the project area, and the project would not cause any conversion of forest land to non-forest use; therefore, there would be no impact.

e. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

NO IMPACT. The project would not cause any changes to the existing environment that would lead to conversion of Farmland to non-agricultural use or to the conversion of forest land to non-forest use. The development of the project would not lead to any population growth or development that would result conversion of farmland, and there is no forest land in the project area; therefore, there would be no impact.

3.3 Air Quality

AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. **Would the project:**

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

3.3.1 Setting

Air Basin and Local Air Districts. The project site is located primarily on land administered by the Bureau of Land Management (BLM) within Riverside County where air resources are regulated by federal, state, and local air quality management agencies. This portion of Riverside County is located within the jurisdiction of the South Coast Air Quality Management District (SCAQMD) within the Salton Sea Air Basin, which lies just east and downwind of the South Coast Air Basin.

Criteria Pollutants. Air quality is determined by measuring ambient concentrations of criteria pollutants. Air pollutants are those pollutants for which acceptable levels of exposure can be determined and for which standards have been set. The degree of air quality degradation is then compared to the current National and California Ambient Air Quality Standards (NAAQS and CAAQS). Unique meteorological conditions in California and differences of opinion by medical panels established by the California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (EPA) cause considerable diversity between state and federal standards currently in effect in California. In general, the CAAQS are more stringent than the corresponding NAAQS. The standards currently in effect in California are shown in Table 3.3-1.

Table 3.3-1. National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	National Standards
Ozone (O ₃)	1-hour	0.09 ppm	—
	8-hour	0.070 ppm	0.070 ppm
Coarse particulate matter (PM ₁₀)	24-hour	50 µg/m ³	150 µg/m ³
	Annual mean	20 µg/m ³	—
Fine particulate matter (PM _{2.5})	24-hour	—	35 µg/m ³
	Annual mean	12 µg/m ³	12 µg/m ³
Carbon monoxide (CO)	1-hour	20 ppm	35 ppm
	8-hour	9.0 ppm	9.0 ppm
Nitrogen dioxide (NO ₂)	1-hour	0.18 ppm	—
	Annual mean	0.030 ppm	0.053 ppm

Table 3.3-1. National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	National Standards
Sulfur dioxide (SO ₂)	1-hour	0.25 ppm	—
	24-hour	0.04 ppm	0.14 ppm
	Annual mean	—	0.03 ppm

Source: CARB 2016.

Notes: ppm = parts per million; µg/m³ = micrograms per cubic meter; — = no standard.

Attainment Status and Air Quality Plans. EPA, CARB, and the local air district (SCAQMD) classify an area as attainment, unclassified, or nonattainment. The classification depends on whether the monitored ambient air quality data show compliance, insufficient data available, or noncompliance with the ambient air quality standards, respectively. The project site is located within Riverside County, under the jurisdiction of SCAQMD.

Table 3.3-2 summarizes attainment status for the criteria pollutants in the Coachella Valley portion of the Salton Sea Air Basin under both the federal and state standards.

Table 3.3-2. Attainment Status for the Coachella Valley Portion of the Salton Sea Air Basin

Pollutant	Federal Designation ^a	State Designation
Ozone (1-hr)	Attainment ^b	Nonattainment
Ozone (8-hr)	Nonattainment (severe)	Nonattainment
PM ₁₀ (24-hr)	Nonattainment (serious)	Nonattainment
PM ₁₀ (annual)	No federal standard	Nonattainment
PM _{2.5} (24-hr)	Unclassified/attainment	No state standard
PM _{2.5} (Annual)	Unclassified/attainment	Attainment
CO (1-hr)	Unclassified/attainment	Attainment
CO (8-hr)	Unclassified/attainment	Attainment
NO ₂ (1-hr)	Unclassified/attainment (maintenance)	Attainment
NO ₂ (annual)	Unclassifiable/attainment	Attainment
SO ₂ (1-hr)	Designation pending ^c	Attainment
SO ₂ (8-hr)	Unclassifiable/attainment ^c	Attainment

Source: SCAQMD 2017.

Notes: PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; CO = carbon monoxide; NO₂ = nitrogen dioxide; SO₂ = sulfur dioxide.

^a EPA often only declares nonattainment areas; everywhere else is listed as unclassifiable/attainment or unclassifiable.

^b The 1979 1-hour ozone NAAQS (0.12 ppm) was revoked, effective June 15, 2005; the Southeast Desert Modified Air Quality Management Area, including the Coachella Valley, had not attained this standard by the November 15, 2007m “severe-17” deadline, based on 2005–2007 data; on August 25, 2014, EPA proposed a clean data finding based on 2011–2013 data and a determination of attainment for the former 1-hour ozone NAAQS for the Southeast Desert nonattainment area; this rule was finalized by EPA on April 15, 2015, effective May 15, 2015, and included preliminary 2014 data.

^c The 1971 annual and 24-hour SO₂ NAAQS were revoked, effective August 23, 2010; however, these 1971 standards will remain in effect until 1 year after EPA promulgates area designations for the 2010 SO₂ 1-hour standard; final area designations expected by December 31, 2020, with the Salton Sea Air Basin expected to be designated unclassifiable/attainment.

Ozone. Ozone (O₃) is not directly emitted from stationary or mobile sources, but is formed as the result of chemical reactions in the atmosphere between directly emitted oxides of nitrogen (NO_x) and volatile organic compounds (VOCs) in the presence of sunlight. Pollutant transport from the Los Angeles area of the South Coast Air Basin is one source of the pollution across Riverside County. High ozone concentrations can

aggravate respiratory and cardiovascular diseases, irritate eyes, impair cardiopulmonary function, and cause leaf damage.

Particulate Matter. Coarse particulate matter, or PM_{10} (particulate matter 10 microns or less in aerodynamic diameter) can be emitted directly or it can be formed many miles downwind from emission sources when various precursor pollutants interact in the atmosphere. Fine particulate matter, or $PM_{2.5}$ (particulate matter 2.5 microns or less in aerodynamic diameter), is derived mainly either from the combustion of materials or from precursor gases, including sulfur oxides [SO_x], NO_x , and VOCs, through complex reactions in the atmosphere. $PM_{2.5}$ consists mostly of sulfates, nitrates, ammonium, elemental carbon, and a small portion of organic and inorganic compounds. In the Salton Sea Air Basin, most ambient particulate matter is due to fugitive dust, such as vehicle travel on unpaved roads, agricultural operations, or windblown dust. Particulate matter can aggravate respiratory diseases, result in reduced lung function, increase and cause chest discomfort, and cause reduced visibility.

Carbon Monoxide. The highest concentrations of carbon monoxide (CO) occur when low wind speeds and a stable atmosphere trap the pollution emitted at or near ground level. These conditions occur frequently in the wintertime late in the afternoon, persist during the night, and may extend 1 or 2 hours after sunrise. In the project area, CO concentrations are well below the NAAQS and CAAQS. CO reduces tolerance of exercise and can cause impairment of mental function, impair fetal development, and aggravate some heart diseases (such as angina), and can cause death at high levels of exposure.

Nitrogen Dioxide. NO_2 is one compound in a group of compounds consisting of oxides of nitrogen (NO_x). Approximately 90% of the NO_x emitted from combustion sources is nitric oxide (NO), while the balance is NO_2 . NO is oxidized in the atmosphere to NO_2 , but some level of photochemical activity is needed for this conversion. The highest concentrations of NO_2 typically occur during the fall. The winter atmospheric conditions can trap emissions near ground level, but lacking substantial photochemical activity (sunlight), NO_2 levels remain relatively low. In the summer the conversion rates of NO to NO_2 are high, but the relatively high temperatures and windy conditions disperse pollutants, preventing the accumulation of NO_2 . The NO_2 concentrations in the project area are well below the NAAQS and CAAQS. NO_2 can aggravate respiratory diseases, reduce visibility, reduce plant growth, and form acid rain.

Sulfur Dioxide. Sulfur oxides (SO_x) are compounds of sulfur and oxygen molecules. SO_2 is the predominant form of SO_x found in the lower atmosphere. Sulfur dioxide (SO_2) is typically emitted as a result of the combustion of a fuel containing sulfur. Overall SO_2 emissions are limited due to the limited number of major stationary sources and the regulatory limits on motor vehicle fuel sulfur content. The SO_2 concentrations in the project area are well below the NAAQS and CAAQS. SO_2 can irritate the upper respiratory tract and can be injurious to lung tissue, causing reduced lung function, including asthma and emphysema. SO_2 can cause plant leaves to yellow and can be destructive to metals, textiles, leather, finishes, and coatings. SO_2 can also limit visibility.

Toxic Air Contaminants. Toxic air contaminants (TACs) are air pollutants that may lead to serious illness or increased mortality, even when present in relatively low concentrations. Birth defects, neurological damage, cancer, and death are some of the possible effects of TACs. There are numerous types of TACs, with a range of toxicities that varies greatly in the health risk they pose, as some may be many times more hazardous than another at the same level of exposure. These contaminants do not have ambient air quality standards but are regulated by the local air districts using a risk-based approach.

Sensitive Receptor Land Uses. There are no sensitive receptor land uses near the project site. The closest residential land use would be approximately 3,450 feet away from the nearest proposed new wind turbine generator (WTG).

Regulatory Background

Federal

Clean Air Act

The federal Clean Air Act, which was enacted in 1970, established the NAAQS for criteria air pollutants. EPA has joint responsibility with SCAQMD and CARB to establish regulations, enforce air pollution control requirements, and develop the necessary air quality management to achieve the NAAQS. EPA implements most aspects of the Clean Air Act, and reviews local and state air quality management plans and regulations to ensure attainment of the NAAQS.

Federal Class I Areas. Section 162(a) of the federal Clean Air Act grants special air quality protections to designated federal Class I areas, including national parks, national wilderness areas, and national monuments. To protect Class I areas, under EPA delegation the SCAQMD implements the Prevention of Significant Deterioration permitting program, which addresses visibility impairment from new or modified stationary sources in the region, such as power plants, mines, or other industrial sources. The federal Class I areas near the project site are as follows:

- San Geronio Wilderness, approximately 2.5 miles northwest of the site access road
- San Jacinto Wilderness, approximately 3.5 miles to the south of the project site
- Joshua Tree National Park, approximately 11 miles to the east of the project site

Federal General Conformity Rule

The federal lead agency (BLM) must make a determination of whether approval of the project (i.e., a federal action) would cause or contribute to a violation of the NAAQS or interfere with attainment planning (40 CFR Part 93, Subpart B, et seq.). The project site is in a federal nonattainment area; therefore, BLM's action is subject to the General Conformity regulations. Specifically, *de minimis* levels are the threshold above which a conformity determination must be performed (40 CFR, Part 93.153). The criteria air pollutant rates that apply for the Salton Sea Air Basin are 25 tons per year of NO_x or VOCs for the federal ozone nonattainment area (severe) and 70 tons per year of PM₁₀ for the federal PM₁₀ nonattainment area (serious).

State

California Clean Air Act

The California Clean Air Act is implemented by CARB. This act establishes broad authority for California to regulate emissions from mobile sources and requires regions to develop and enforce strategies to attain the CAAQS. For the project, the regional air district (SCAQMD) is responsible for demonstrating how these standards are met.

EPA/CARB Off-Road Mobile Sources Emission Reduction Program

The California Clean Air Act mandates that CARB achieve the maximum degree of emission reductions from all off-road mobile sources to attain the CAAQS. Off-road mobile sources include construction equipment. Tier 1 standards for large compression-ignition engines used in off-road mobile sources went into effect in California in 1996. These standards and ongoing rulemaking jointly address emissions of NO_x and toxic particulate matter from diesel combustion (diesel particulate matter [DPM]). CARB is also developing a control measure to reduce DPM emissions as well as NO_x from in-use (existing) off-road diesel equipment throughout the state.

CARB In-Use Off-Road Diesel Fueled Fleets Regulation

The regulations for in-use off-road diesel equipment are designed to reduce NO_x and DPM emissions. Depending on the size of the equipment fleet, the owner would need to ensure that the average emissions performance of the fleet meets certain statewide standards. Currently, all equipment owners are subject to a 5-minute idling restriction in the rule (13 California Code of Regulations, Chapter 10, Section 2449).

CARB Portable Equipment Registration Program

This program allows owners or operators of portable engines and associated equipment commonly used for construction or farming to register their units under a statewide portable program. This program allows them to operate their equipment throughout California without having to obtain individual permits from local air districts.

Local

SCAQMD Rule 219

The project site and proposed project activities are under local jurisdiction of SCAQMD. Most types of equipment used for construction are classified as mobile sources and are thus exempt from stationary source permit requirements. According to SCAQMD Rule 219, some other equipment used may be subject to permit requirements, such as generators, compressors, pumps, and concrete batch plants.

SCAQMD Rule 402

Rule 402 (Nuisance) requires dust suppression techniques to prevent particles from becoming a nuisance off site.

SCAQMD Rule 403

Rule 403 (Fugitive Dust) prohibits creation of dust plumes that are visible beyond the property line of the emission source and requires all active operations to implement applicable best available control measures. Enhanced dust control requirements apply if the project is considered a “large operation” under this rule, which is any active operations on property that contains 50 or more acres of disturbed surface area.

County of Riverside General Plan

Riverside County adopted the Air Quality Element of the County of Riverside (County) General Plan in 2015. The Air Quality Element includes policies supporting regional cooperation with other jurisdictions to improve air quality; requires compliance with federal, state, and regional air quality regulations; encourages programs to reduce vehicle miles traveled; encourages energy conservation in urban land uses; and encourages development patterns that improve the County’s jobs/housing balance.

The Air Quality Element includes one policy directly relevant to the proposed project, Policy AQ 20.19, which requires facilitating development and siting of renewable energy facilities and transmission lines in appropriate locations (County of Riverside 2018).

Applicant Proposed Measures

The following Applicant Proposed Measures (APMs) would reduce impacts to fugitive dust and exhaust emissions, and where applicable, are referenced in the impact analysis section below:

APM AQ-1 Fugitive Dust Control Plan. The project applicant shall mitigate the particulate matter impact caused by dust emissions during construction by implementing a suite of effective

dust control practices, such as using soil stabilizers or watering exposed areas (two times per day or as needed) throughout construction and future decommissioning and by limiting vehicle travel speeds to no more than 15 miles per hour on unpaved areas within the construction site. Visible speed limit signs must be posted at the site entrance. Consistent with APM BIO-5 (Wildlife Protection), soil stabilizers shall be non-toxic to wildlife and plants.

APM AQ-2 On-Site Off-Road Equipment Emissions Control. The project applicant shall mitigate the NO_x, PM₁₀, and PM_{2.5} in diesel exhaust emissions by requiring use of off-road equipment that achieves Tier 3 engine emissions standards.

3.3.2 Impact Analysis

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

LESS THAN SIGNIFICANT IMPACT. For the project area, SCAQMD and CARB ensure implementation of California's air quality management plans, known collectively as the State Implementation Plan. State-level air quality planning strategies to attain the CAAQS are implemented through rules, regulations, and programs adopted by SCAQMD and CARB to control ozone precursors, PM₁₀, and PM_{2.5}. Project-related activities would comply with the applicable rules, regulations, and programs. Strategies and control measures identified within the 2016 AQMP (SCAQMD 2017) apply to activities in the project area and the proposed project where promulgated through SCAQMD's rules and regulations.

All construction and project activities, including future decommissioning, would occur on the site of the existing Mesa Wind energy facility that would be repowered, as well as on project access roads on lands administered by BLM and the County. Project emissions would comply with SCAQMD Rules 402 and 403, which prevent nuisance and regulate fugitive dust emissions. In addition, incorporation of APM AQ-1 and APM AQ-2 would control fugitive dust and on-site off-road equipment emissions in accordance with plan requirements. The project would also conform to the federal and state Clean Air Act requirements. Furthermore, the project's emissions would not exceed the federal General Conformity *de minimis* levels of emissions. Accordingly, project construction and future decommissioning would not conflict with or obstruct implementation of applicable air quality plans. Therefore, impacts would be less than significant.

A project could be inconsistent with the applicable air quality management plan or attainment plan if it causes population and/or employment growth or growth in vehicle miles traveled in excess of the growth forecasts included in the attainment plan. Upon commencing routine operation and maintenance (O&M) activities of the proposed project, the temporary construction workforce would no longer be employed, and only the small number of permanent employees would remain active in the project area. There would be no change in overall employment or emissions from the baseline during project operation, because the O&M would remain the same as, or very similar to, existing conditions. Therefore, project O&M would not conflict with or obstruct implementation of applicable air quality plans, and no impact would occur during O&M.

b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

LESS THAN SIGNIFICANT IMPACT. The project site is in an area designated as nonattainment for both federal and state ozone and PM₁₀ standards. Construction-phase and decommissioning emissions would be intermittent and variable due to the phased activities of construction. Emissions sources would be dispersed over the project site and would not be used continuously or at the same time. Substantial or adverse levels of localized ground-level concentrations of criteria pollutants and TACs would not be likely

to occur during construction or decommissioning activities because the pollutants would be emitted from several pieces of equipment dispersed over the project site. Dust control and engine exhaust would be subject to SCAQMD rules and regulations and APMs would be incorporated to avoid adverse levels of ozone precursor (namely, NO_x) and PM₁₀ emissions.

Table 3.3-3 summarizes the overall construction emissions per year without APMs, and Table 3.3-4 shows overall construction emissions with implementation of APM AQ-1 and APM AQ-2 to control fugitive dust and on-site off-road equipment emissions.

Table 3.3-3. Proposed Project Yearly Overall Construction Emissions, Without APMs

Construction Activity Phase	Pollutant Emissions per Phase (Tons/Year)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Roadway Improvements and Installing New WTGs (2021)	0.52	5.50	3.97	0.01	42.36	4.52
Installing New WTGs and Restoration and Revegetation (2022)	0.65	5.91	5.63	0.02	62.82	6.54
Restoration and Revegetation (2023)	0.03	0.20	0.32	0.00	3.89	0.40
Decommissioning of New WTGs (2053)	0.18	0.72	2.00	0.00	14.86	1.51
Construction Emissions without APMs	0.65	5.91	5.63	0.02	62.82	6.54

Source: CalEEMod Output (see Appendix B).

Notes: APM = Applicant Proposed Measure; VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; WTG = wind turbine generator.

Table 3.3-4. Proposed Project Yearly Overall Construction Emissions, With APMs

Construction Activity Phase	Pollutant Emissions per Phase (Tons/Year)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Roadway Improvements and Installing New WTGs (2021)	0.28	4.43	4.71	0.01	7.34	0.97
Installing New WTGs and Restoration and Revegetation (2022)	0.39	5.41	6.71	0.02	10.69	1.35
Restoration and Revegetation (2023)	0.02	0.23	0.35	0.00	0.68	0.08
Decommissioning of New WTGs (2053)	0.10	2.03	2.62	0.00	2.58	0.37
Construction Emissions with APMs	0.39	5.41	6.71	0.02	10.69	1.35
General Conformity <i>de minimis</i> Levels	25	25	None	None	70	None

Source: CalEEMod Output (see Appendix B).

Notes: APM = Applicant Proposed Measure; VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; WTG = wind turbine generator.

Characterizing the potential impact of the net increases of criteria air pollutants relies on comparing daily maximum emissions rates with mass emissions thresholds recommended by SCAQMD. Table 3.3-5 shows that maximum daily emissions without controls could exceed thresholds for NO_x, PM₁₀, and PM_{2.5}. However, as shown in Table 3.3-6, with implementation of APM AQ-1 and APM AQ-2 the maximum daily emissions would not exceed the SCAQMD thresholds. Because construction emissions would be below the thresholds for CO and SO_x, project construction would not cause a considerable net increase of CO or SO₂, and this impact would be less than significant for these pollutants. In addition, construction emissions

would not exceed the federal General Conformity *de minimis* levels. Accordingly, with incorporation of APM AQ-1 and APM AQ-2 during project construction and decommissioning, impacts to air quality would not result in a cumulatively considerable net increase of any criteria pollutant. Therefore, impacts would be less than significant.

Table 3.3-5. Proposed Project Maximum Daily Construction Emissions, Without APMs

Construction Activity Phase	Pollutant Emissions (Pounds/Day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Roadway Improvements and Installing New WTGs (2021)	10.7	124.1	80.1	0.3	804.0	87.8
Installing New WTGs and Restoration and Revegetation (2022)	7.1	62.1	63.3	0.2	710.1	73.8
Restoration and Revegetation (2023)	0.9	5.9	10.2	0.0	121.5	12.5
Decommissioning of New WTGs (2053)	1.4	5.6	15.4	0.0	120.9	12.3
Maximum Daily Emissions without APMs	10.7	124.1	80.1	0.3	804.0	87.8

Source: CalEEMod Output (refer to Appendix B).

Notes: APM = Applicant Proposed Measure; VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; WTG = wind turbine generator.

Table 3.3-6. Proposed Project Maximum Daily Construction Emissions, With APMs

Construction Activity Phase	Pollutant Emissions (Pounds/Day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Roadway Improvements, and Installing New WTGs (2021)	5.9	99.3	94.1	0.3	141.6	19.6
Installing New WTGs, and Restoration, Revegetation (2022)	4.4	57.2	74.5	0.2	120.4	15.1
Restoration, Revegetation (2023)	0.6	6.9	11.0	0.0	20.8	2.6
Decommissioning of New WTGs (2053)	0.8	15.6	20.2	0.0	20.9	3.0
Maximum Daily Emissions, with APMs	5.9	99.3	94.1	0.3	141.6	19.6
SCAQMD Daily Thresholds	75	100	550	150	150	55

Source: CalEEMod Output (refer to Appendix B).

Notes: APM = Applicant Proposed Measure; VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; WTG = wind turbine generator.

Operations-related emissions would be the same as baseline emissions, because the O&M would remain the same as, or very similar to, existing conditions. Therefore, no impact would occur during O&M.

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

LESS THAN SIGNIFICANT IMPACT. Construction and decommissioning emissions of air pollutants would occur at variable rates during the short term and across a large area with no sensitive receptors nearby. The SCAQMD recommends using localized significance thresholds for determining impacts in the immediate area as a result of emissions from development sites that are 5 acres or smaller. In contrast, the Mesa Wind energy facility is located on 401 acres of BLM-administered lands; accordingly, the localized significance thresholds are not applicable. For large sites such as the Mesa Wind energy facility, concentrations of DPM emissions from diesel-powered construction equipment and vehicles would be

greatly reduced by the distance between construction activities and receptors far from the site. Normally, a separation of 1,000 feet allows sensitive land uses to avoid high levels of DPM concentrations (CARB 2005). The closest residence or habitable dwelling to project construction activities would be 3,450 feet away. There are no sensitive receptors within 3,450 feet of the project site. Therefore, emissions from diesel-powered construction equipment and vehicles would not expose sensitive receptors to substantial pollutant concentrations. Therefore, this impact would be less than significant.

Soils in some areas of California host the microscopic fungus that causes valley fever, known as *Coccidioides immitis*, which lives in the top 2 to 12 inches of soil in many parts of the state. When soil is disturbed by activities such as digging, driving, or high winds, fungal spores can become airborne and can potentially be inhaled. Workers in Riverside County are less at risk than those in the Central Valley, where the greatest incidence of reported human valley fever cases occur (DPH 2016). Project construction and decommissioning activities would be subject to stringent dust control requirements (including SCAQMD Rule 403), as well as APM AQ-1 (Fugitive Dust Plan), and these mandatory controls would avoid exposing construction workers and the off-site population to substantial concentrations of dust. As such, impact related to potential exposure to valley fever would be less than significant.

Localized Significance Threshold Analysis

Sensitive receptors are those individuals more susceptible to the effects of air pollution than the population at large. People most likely to be affected by air pollution include children, the elderly, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993). Sensitive receptors near the project site include residences adjacent to the project site located to the southwest and southeast of the project boundaries, in the Whitewater and Bonnie Bell communities, respectively.

A localized significance threshold (LST) analysis has been prepared to determine potential impacts to nearby sensitive receptors during construction of the project. As indicated in the discussion of the thresholds of significance, the SCAQMD also recommends the evaluation of localized NO₂, CO, PM₁₀, and PM_{2.5} impacts as a result of construction activities to sensitive receptors in the immediate vicinity of the project site. The impacts were analyzed using methods consistent with those in SCAQMD's Final Localized Significance Threshold Methodology (2009). According to the Final Localized Significance Threshold Methodology, "off-site mobile emissions from the project should not be included in the emissions compared to the LSTs" (SCAQMD 2009). Hauling of soils and construction materials associated with project construction are not expected to cause substantial air quality impacts to sensitive receptors along off-site roadways. Localized emissions from the trucks would be relatively brief in nature and would cease once the trucks pass through the main streets.

The LST significance thresholds for NO₂ and CO represent the allowable increase in concentrations above background levels in the vicinity of a project that would not cause or contribute to an exceedance of the relevant ambient air quality standards, while the threshold for PM₁₀ represents compliance with Rule 403 (Fugitive Dust). The LST significance threshold for PM_{2.5} is intended to ensure that construction or operational emissions do not contribute substantially to existing exceedances of the PM_{2.5} ambient air quality standards. The allowable emission rates depend on the following parameters:

1. Source-Receptor Area (SRA) in which the project is located
2. Size of the project site
3. Distance between the project site and the nearest sensitive receptor (e.g., residences, schools, hospitals)

The project would be within SRA 30 (Coachella Valley). LST pollutant screening level concentration data is currently published for 1-, 2-, and 5-acre sites for varying distances (25-, 50-, 100-, 200-, and 500-meters). The project includes 98.0 acres of ground disturbance. In accordance with the SCAQMD Fact Sheet for Applying CalEEMod [California Emissions Estimator Model] to Localized Significance Thresholds, the project would disturb a maximum of 2 acres per day during the roadway improvements phase (SCAQMD 2014). LSTs are more stringent for smaller areas (i.e., 1-acre LSTs are more stringent than 2-acre and 5-acre LSTs); therefore, the use of a 2-acre LST is conservative.

Construction and decommissioning activities associated with the project would result in temporary sources of on-site fugitive dust and construction equipment emissions. Operational emissions include use of off-road equipment and mobile sources on site. The maximum allowable daily emissions that would satisfy the SCAQMD localized significance criteria for SRA 30 are presented in Table 3.3-7 and compared to the maximum daily on-site construction and operational emissions generated during the project.

Table 3.3-7. Localized Significance Threshold Analysis for Project – Unmitigated

Maximum On-Site Emissions	Pollutant Emissions (Pounds per Day)			
	NO ₂	CO	PM ₁₀	PM _{2.5}
Construction emissions	99.26	94.06	141.55	19.61
SCAQMD LST	769	26,212	223	112
LST exceeded?	No	No	No	No

Source: SCAQMD 2009.

Notes: NO₂ = nitrogen dioxide; CO = carbon monoxide; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; SCAQMD = South Coast Air Quality Management District; LST = localized significance threshold.

See Appendix B for complete results.

LSTs are shown for a 2-acre project site, corresponding to a distance to a sensitive receptor of 500 meters (1,640 feet).

These estimates include implementation of the project's fugitive dust control strategies, including watering of the project site and unpaved roads twice per day.

As shown in Table 3.3-7, construction activities would not generate emissions in excess of site-specific LSTs; therefore, localized impacts during construction of the project would be less than significant.

The closest residence or habitable dwelling to the project is approximately 3,450 feet away. There are no sensitive receptors within 3,450 feet of the proposed WTGs. Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations during O&M activities, and impacts would be less than significant.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

NO IMPACT. During construction and decommissioning activities, no other emissions or odors would be generated that would adversely affect a substantial number of people. Odors would potentially be generated from vehicles and equipment exhaust emissions during construction of the proposed project. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment. Such odors would disperse rapidly from the project site and would generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be less than significant.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding facilities. The repowering of the wind energy facility is not a use that would

generate objectionable odors. The closest residential use to the project is approximately 3,450 feet away. The project site is also relatively remote, and not many people are near the project. In addition, there would be no change in emissions from the baseline during O&M, because there would be no change, or very little change, to existing operations. Therefore, no impact would occur.

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3.4 Biological Resources

BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

3.4.1 Setting

This section of the Initial Study describes biological resources at the project site and evaluates the project’s potential impacts to biological resources, including jurisdictional waters. With implementation of Applicant Proposed Measures (APMs; see below under Applicant Proposed Measures) and mitigation measures (refer to Section 3.4.2, Impact Analysis), the project’s potential impacts to biological resources would not be significant. The analysis is based on a Biological Resources Technical Report (BRTR) and a Jurisdictional Delineation prepared by Aspen Environmental Group (Aspen) (refer to Appendices C-1 and C-2). The BRTR includes a literature review of special-status biological resources reported by the California Natural Diversity Database for the Cabazon, Catclaw Flat, Desert Hot Springs, Lake Fulmor, Morongo Valley, Palm Springs, San Gorgonio Mountain, San Jacinto Peak, and Whitewater U.S. Geological Survey 7.5-minute topographic quads. It also includes a review of the California Native Plant Society’s Online Inventory (CNPS 2019), the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP; CVAG 2007); the Bureau of Land Management (BLM) List of California Sensitive Animals and Plant Species (BLM 2014, 2012); and the environmental documents previously prepared for earlier repower project proposals on the Mesa Wind energy facility site, including the Biological Opinion (USFWS 2009) and a general biological resources report (NRA 2008). In addition, Aspen discussed prior wildlife observations with on-

site operations manager Rowland Griese, including discussions of desert tortoise (*Gopherus agassizii*), golden eagle (*Aquila chrysaetos*), and Nelson's bighorn sheep (*Ovis canadensis nelsoni*).

Multiple reconnaissance surveys for biological resources, as well as focused surveys for migratory birds, golden eagles, bats, desert tortoise, and other special-status plants and animals, have been conducted at the site between the years 2012 and 2019. In addition, the project site has been the subject of detailed desert tortoise research conducted by the U.S. Geological Survey in 1997, 1998, 1999, 2000, 2009, and 2010. The project site is on BLM lands within the CVMSHCP boundaries. These biological studies are compiled and documented in the BRTR and Jurisdictional Delineation (Appendices C-1 and C-2). The bird and bat documents prepared for the proposed project are provided in Appendices C-3 through C-9, and Appendix C-10 provides the biological survey report for the access route.

Regulatory Background

Federal

Federal Endangered Species Act

The federal Endangered Species Act (ESA; 16 USC 1531 et seq.) establishes legal requirements for the conservation of endangered and threatened species and the ecosystems upon which they depend.

Section 9. Section 9 of the ESA lists those actions that are prohibited under the ESA, including take (i.e., to harass, harm, pursue, hunt, wound, or kill) of listed species without special exemption. "Harm" is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or shelter. "Harass" is further defined as actions that create the likelihood of injury to listed species to an extent as to significantly disrupt normal behavior patterns, which include breeding, feeding, and shelter.

Section 10. Section 10 allows for the incidental take of endangered and threatened species by nonfederal entities. "Incidental take" is defined by the ESA as take that is "incidental to, and not the purpose of, the carrying out of an otherwise lawful activity." Section 10 requires an applicant for an incidental take permit to submit a habitat conservation plan that specifies, among other things, the impacts that are likely to result from the taking and the measures the applicant will undertake to minimize and mitigate such impacts.

Critical Habitat. Designation of an area as critical habitat provides a means by which the habitat of an endangered or threatened species can be protected from adverse changes or destruction resulting from federal activities or projects. A critical habitat designation does not set up a reserve or refuge and usually applies only when federal funding, permits, or projects are involved.

Clean Water Act

The Clean Water Act (33 USC 1251 et seq.) establishes legal requirements for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Federal jurisdiction is determined by the U.S. Army Corps of Engineers (USACE) and has not yet been determined for the project site.

Section 401. Section 401 requires that an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the United States must obtain a state certification that the discharge complies with other provisions of the Clean Water Act. The Regional Water Quality Control Boards (RWQCBs) administer the certification program in California.

Section 404. Section 404 establishes a permit program administered by USACE regulating the discharge of dredged or fill material into waters of the United States, including wetlands. Implementing regulations by USACE are found at Title 33 of the Code of Federal Regulations, Parts 320–330. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines and were developed by EPA in conjunction with USACE (40 CFR Part 230). The Section 404(b)(1) Guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA; 16 USC 703–711) is a treaty signed by the United States, Canada, Mexico, and Japan that prohibits take of any migratory bird, including eggs or active nests, except as permitted by regulation (e.g., hunting waterfowl or upland game species). Under the MBTA, “migratory bird” is broadly defined as “any species or family of birds that live, reproduce or migrate within or across international borders at some point during their annual life cycle” and thus applies to most native bird species.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 USC 668, enacted by 54 Stat. 250) protects bald and golden eagles by prohibiting the taking, possession, and commerce of such birds and establishes civil penalties for violation of this act. Under the Bald and Golden Eagle Protection Act, take includes “disturb,” which means “to agitate or bother a bald eagle or a golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”

Plant Protection Act of 2000

This act prevents importation, exportation, and spread of pests that are injurious to plants, and provides for the certification of plants and the control and eradication of plant pests. The Plant Protection Act (7 USC 7701 et seq.) consolidates requirements previously contained within multiple federal regulations, including the Federal Noxious Weed Act, the Plant Quarantine Act, and the Federal Plant Pest Act.

State

California Fish and Game Code

California Endangered Species Act

The California Endangered Species Act (CESA; California Fish and Game Code, Section 2050 et seq.) establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that state agencies do not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. In general, “take” as defined by California Fish and Game Code Section 86 of any native plant or animal designated by the California Fish and Game Commission as a candidate, threatened, or endangered under CESA is prohibited and subject to criminal enforcement, except as provided by law. (Fish & G. Code, §§ 2080, 2085.) For projects that will take species listed under both CESA and the federal ESA, compliance with the federal ESA may satisfy CESA if the California Department of Fish and Wildlife (CDFW) determines that the federal incidental take authorization is consistent with CESA under California Fish and Game Code Section 2080.1. For projects

that will result in take of a species listed under CESA, but where a CDFW consistency determination is not available, take may be authorized subject to conditions prescribed by statute through the issuance of an incidental take permit under Section 2081(b).

California Native Plant Protection Act

Prior to enactment of CESA and the federal ESA, California adopted the Native Plant Protection Act (NPPA; California Fish and Game Code Section 1900 et seq.). Take of NPPA-designated endangered and rare plants, among other things, is prohibited under Section 1908, subject to a number of exceptions. CDFW may permit otherwise prohibited take of NPPA rare plants by regulation set forth in Title 14 of the California Code of Regulations, Section 786.9. With related overlap to CESA as enacted by name in 1984 and amended to address native plants, permitted take of plants designated as endangered under the NPPA prior to 1985 is generally provided by CDFW through CESA and other relevant provisions of the California Fish and Game Code.

California Desert Native Plants Act

The provisions in the California Desert Native Plants Act (California Food and Agriculture Code, Division 23) protect specific California desert native plants (i.e., species in the families Agavaceae, Cacti, Fouquieriaceae; species in the genera *Prosopis* and *Parkinsonia* (*Cercidium*); and the species *Acacia greggii*, *Atriplex hymenelytra*, *Dalea spinosa*, and *Olneya tesota*) from unlawful harvest on private and public lands in the counties of the California deserts, including Riverside County. Appropriate permits are required for such harvesting.

California Porter-Cologne Water Quality Control Act

Pursuant to the California Porter-Cologne Water Quality Control Act, the State Water Resources Control Board (SWRCB) and its nine RWQCBs may require permits (“waste discharge requirements”) for the fill or alteration of waters of the state. The term “waters of the state” is defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” (California Water Code, Section 13050[e]). Although “waste” is partially defined as any waste substance associated with human habitation, SWRCB interprets this to include fill discharge into water bodies. SWRCB and the RWQCBs have interpreted their authority to require waste discharge requirements to extend to any proposal to fill or alter waters of the state, even if those same waters are not under USACE jurisdiction. Pursuant to this authority, SWRCB and the RWQCBs may require the submission of a report of waste discharge under California Water Code Section 13260, which is treated as an application for a waste discharge requirement.

Sections 3511, 4700, 5515, and 5050 – Fully Protected Designations

The California Fish and Game Code currently prohibits the take and possession of 36 fish and wildlife species designated as “fully protected” under the code. (Fish & Game Code, §§ 3511, 4800, 5050, 5515.) Authority to permit otherwise prohibited take and possession of fully protected species is limited. Exceptions include necessary scientific research, including efforts to recover the species, and pursuant to a CDFW approved Natural Community Conservation Plan as provided by Section 2835.

Sections 3503 and 3513

California Fish and Game Code Section 3503 prohibits take, possession, or needless destruction of bird nests or eggs except as otherwise provided by the Code; Section 3503.5 prohibits take or possession of birds of prey or their eggs except as otherwise provided by the Code; and Section 3513 provides for the

adoption of the MBTA's provisions. With the exception of a few non-native birds, such as European starling (*Sturnus vulgaris*), the take of any birds or loss of active bird nests or young is regulated by these statutes. Most of these species have no other special conservation status as defined above. The administering agency for these sections is CDFW. As with the MBTA, these statutes offer no statutory or regulatory mechanism for obtaining an incidental take permit for the loss of non-game migratory birds.

Sections 1600–1616 – Lake or Streambed Alteration Agreements

Under these sections of the California Fish and Game Code, an applicant is required to notify CDFW prior to constructing a project that would divert, obstruct, or change the natural flow, bed, channel, or bank of a river, stream, or lake. Preliminary notification and project review generally occur during the environmental review process. When a fish or wildlife resource may be substantially adversely affected, CDFW is required to propose reasonable project changes to protect the resource. These modifications are formalized in a Lake and Streambed Alteration Agreement that becomes part of the plans, specifications, and bid documents for the project. CDFW jurisdiction is determined to occur within the water body of any natural river, stream, or lake. The term "stream," which includes creeks and rivers, is defined in Title 14, California Code of Regulations, Section 1.72.

Local

Western Coachella Valley Area Plan

The following policies in the Western Coachella Valley Area Plan (County of Riverside 2019) are applicable to biological resources in the project area:

- WCVAP 22.1 Protect biological resources in the Western Coachella Valley through adherence to General Plan policies found in the Multiple Species Habitat Conservation Plans, Environmentally Sensitive Lands, Wetlands, and Floodplain and Riparian Area Management sections of the Multipurpose Open Space Element, as well as policies contained in the Coachella Valley Multiple Species Habitat Conservation Plan.
- WCVAP 22.2 Preserve the environmentally sensitive alluvial fan areas flowing out of the canyons of the Santa Rosa Mountains.

Coachella Valley Multiple Species Habitat Conservation Plan

The project is located within the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) boundaries (CVAG 2007). The CVMSHCP identifies several Conservation Areas within its boundaries: the western portion of the project site is located within the Stubbe and Cottonwood Canyons Conservation Area, and the eastern area is located within the Whitewater Canyon Conservation Area. For projects located on private lands within the CVMSHCP area, the CVMSHCP provides state and federal Endangered Species Act coverage for several listed species as well as mitigation coverage for multiple other special-status plant and wildlife species. The BLM is not a permittee under the CVMSHCP; therefore, most of the project site would not be eligible for listed species take coverage under the CVMSHCP. However, the western portion of the access road (Figure 2-3, Site Plan) is located on private land and completed a Joint Project Review (JPR) process to determine consistency with the CVMSHCP. As a permittee, the County handles this JPR process first, with subsequent review by the Coachella Valley Conservation Commission (CVCC), followed by review and concurrence by CDFW and the U.S. Fish and Wildlife Service (USFWS).

Applicant Proposed Measures

The following APMs were developed in coordination with BLM and USFWS to address the impacts to biological resources from implementation of the project. In addition, the project is subject to Conservation Management Actions (CMAs) specified by the Desert Renewable Energy Conservation Plan Land Use Plan Amendment (BLM 2016) and all applicable CMAs will be implemented (BLM 2020).

The applicant has proposed habitat compensation to offset the impacts to desert tortoise habitat; however, based on the analysis provided in Section 3.4.2, the habitat compensation requirements have been incorporated into Mitigation Measure (MM) BIO-1 (Habitat Compensation) (refer to Section 3.4.2). In addition, MM BIO-2 (Bird and Bat Conservation Strategy Standards), MM BIO-3 (Restoration and Revegetation Standards), and MM BIO-4 (CVMSHCP Consistency) were developed based on the impact analysis in Section 3.4.2.

Where applicable, APMs are referenced in the impact analysis section (Section 3.4.2). In addition, mitigation measures are presented in Section 3.4.2.

APM BIO-1 Wildlife Relocation. The applicant shall prepare and implement a Wildlife Relocation Plan to ensure that special-status wildlife species, including (but not limited to) desert tortoise, burrowing owl, and desert kit fox, are safely relocated outside the project construction area prior to construction. The Wildlife Relocation Plan will conform to USFWS guidelines for desert tortoise surveys and relocation and to CDFW guidelines for burrowing owl and desert kit fox passive relocation, including scheduling to avoid disturbance to natal dens or burrows. The Wildlife Relocation Plan will specify methodology for preconstruction clearance surveys on the proposed project construction sites; monitoring or tracking special-status species, burrows, or dens that may be located during the surveys; construction of off-site artificial burrows, if needed; relocation methods for localized “out of harm’s way” relocation; passive relocation methods for burrowing owl or desert kit fox; qualifications of field personnel who may handle desert tortoises; and follow-up monitoring of relocated animals. As part of CDFW approval, a project specific Desert Tortoise Relocation Plan may also be included as a condition of the Incidental Take Permit.

APM BIO-2 Biological Monitoring. The applicant shall assign an authorized biologist as the primary point of contact for the lead resource agencies regarding biological resources mitigation and compliance. For desert tortoise protection measures (refer to APM BIO-6), the authorized biologist will also serve as the field contact representative (FCR). The applicant will provide the resume and USFWS health assessment letter, if applicable, of the proposed authorized biologist to BLM, USFWS, and CDFW (as appropriate) for concurrence at least 30 days prior to the onset of ground-disturbing activities. The authorized biologist will have demonstrated expertise with the biological resources within the project area. In general, the duties will include, but will not be limited to those listed below:

- Maintain regular, direct communication with representatives of BLM, USFWS, CDFW, and other agencies, as appropriate.
- Train and supervise additional Biological Monitors to ensure that all biological monitoring activities are completed properly and according to schedules. Monitoring will include clearance surveys of any area or activity that may impact biological resources to ensure compliance with all avoidance and minimization measures for biological resources.

- Conduct or oversee worker environmental awareness program (WEAP) training (APM BIO-3).
- Conduct or oversee clearance surveys and monitoring duties.
- Halt any activities in any area if it is determined that the activity, if continued, would cause an unauthorized adverse impact to biological resources.
- Clearly mark sensitive biological resource areas during construction, operations and maintenance (O&M), and decommissioning, and inspect these areas at appropriate intervals for compliance with regulatory terms and conditions.
- Conduct or oversee compliance inspections during ground-disturbing construction and decommissioning activities. Inspections will include delineating limits of disturbance, fence construction activities, pre-construction clearance surveys, and clearing, grubbing, and grading.
- Inspect or oversee daily inspection of active construction or O&M activity areas where animals may have become trapped. At the end of each workday, either inspect installation of structures that prevent entrapment or allow escape during periods of construction inactivity. Periodically inspect areas with high vehicle activity (e.g., parking lots) for animals in harm's way and relocate them if necessary.
- During the O&M phase of the project, provide annual reports, conduct compliance inspections (trash management, wildlife mortality logs per incident, etc.), and conduct weed monitoring and control (according to the Integrated Weed Management Plan [IWMP]; refer to APM BIO-8).
- Immediately notify the applicant, BLM, and resource agencies (as applicable) in writing of dead or injured special-status species, or of any noncompliance with biological mitigation measures or permit conditions.
- During construction, provide weekly verbal or written updates to BLM and, for any information pertinent to state or federal permits, to BLM and the resource agencies.
- During construction and O&M, prepare and submit monthly and annual compliance reports, respectively.

Qualifications of Authorized Biologist. The applicant shall assign at least one authorized biologist to the project. The applicant shall submit the résumé and USFWS health assessment letter, if applicable, of the proposed authorized biologist(s), with at least three references and contact information, to the BLM authorized officer (AO) and CDFW for approval in consultation with USFWS at least 45 days prior to the start of ground-disturbing activities. The authorized biologist must meet the following minimum qualifications:

- A bachelor's degree in biological sciences, zoology, botany, ecology, or a closely related field
- Three years of experience in field biology or current certification of a nationally recognized biological society, such as The Ecological Society of America or The Wildlife Society
- At least 1 year of field experience with the biological resources found in or near the project area

- The current USFWS authorized biologist qualifications, a demonstrated familiarity with protocols and guidelines for the desert tortoise, and approval by USFWS

In lieu of the above requirements, the proposed authorized biologist or alternate's résumé shall demonstrate to the satisfaction of the BLM AO and CDFW in consultation with USFWS, that the candidate has the appropriate training and background to effectively implement the mitigation measures.

Process of approving a biological monitor:

- The authorized biologist or the applicant shall submit at least 45 days prior to construction the résumé, at least three references, and contact information of the proposed biological monitor to the BLM AO and CDFW. The proposed biological monitor's resume shall demonstrate, to the satisfaction of the BLM AO and CDFW, the appropriate education and experience to accomplish the assigned biological resource tasks. The biological monitor is the equivalent of the USFWS-approved biologist.
- Biological monitor(s) training by the authorized biologist shall include familiarizing the biological monitor(s) with the project design features, the Biological Opinion, the WEAP, and USFWS guidelines on desert tortoise surveys and handling procedures.

APM BIO-3

Worker Environmental Awareness Program Training. The authorized biologist must prepare and implement a WEAP. The applicant will be responsible for ensuring that all workers at the site receive WEAP training prior to beginning work on the project and throughout construction and operation. The WEAP must be available in English and Spanish. The applicant shall submit the WEAP to BLM, USFWS, and CDFW for approval prior to implementation. If BLM does not respond to submittal of the draft WEAP within 60 days, the project owner may consider this a waiver of BLM, USFWS, and CDFW authority to comment and the WEAP may be considered approved. The WEAP shall:

- Be developed by or in consultation with the authorized biologist and consist of an on-site or training center presentation with supporting written material and electronic media, including photographs of protected species, available to all participants.
- Provide an explanation of the function of the flagging that designates authorized work areas and specify the prohibition of soil disturbance or vehicle travel outside designated areas.
- Discuss general safety protocols such as vehicle speed limits; a hazardous substance spill prevention, control, and countermeasures plan; and fire prevention and protection measures.
- Review mitigation and biological permit requirements.
- Explain the sensitivity of the vegetation and habitat within and adjacent to work areas and provide procedures for proper identification of these resources.
- Discuss the federal and state Endangered Species Acts, Bald and Golden Eagle Protection Act, and the Migratory Bird Treaty Act and the consequences of noncompliance with these acts.
- Discuss the locations and types of sensitive biological resources on the project site and adjacent areas and explain the reasons for protecting these resources. This

includes the biology and ecology of sensitive biological resources on the project site and adjacent areas.

- Inform participants that no snakes, other reptiles, birds, bats, or any other wildlife will be harmed or harassed.
- Place special emphasis on species that may occur on the project site, including special-status plants, desert tortoise, burrowing owl, golden eagle, nesting birds, desert kit fox, American badger, and Nelson's bighorn sheep.
- Specify guidelines for avoiding rattlesnakes and reporting rattlesnake observations to ensure worker safety and avoid killing or injuring rattlesnakes. Wherever feasible, rattlesnakes should be safely removed from the work area using appropriate snake handling equipment, including a secure storage container for transport.
- Describe workers' responsibilities regarding wildlife avoidance, prohibition of pets and firearms, and avoiding the introduction of invasive weeds to the project site and surrounding areas; describe the IWMP.
- Provide contact information for the FCR (and authorized biologist) and provide instructions for notifying the authorized biologist of discoveries of any threatened, endangered, or sensitive wildlife; vehicle-wildlife collisions; or dead or injured wildlife species encountered during project-related activities.
- Include a WEAP training acknowledgment form to be signed by each worker indicating that they received training and will abide by the guidelines. If the training program is presented as a pre-recorded presentation, it shall be accompanied by a formal process that allows submission of questions that shall be answered by the Authorized Biologist(s) within 24 hours of submission.

APM BIO-4

Minimization of Vegetation and Habitat Impacts. Prior to ground-disturbing activities, work areas (including, but not limited to, staging areas, access roads, and sites for temporary placement of construction materials and spoils) must be delineated with construction fencing (e.g., the common orange vinyl material) or staking to clearly identify the limits of work, and these limits must be verified by the authorized biologist. No paint or permanent discoloring agents shall be applied to rocks or vegetation to indicate surveyor construction activity limits or for any other purpose. Fencing/staking will remain in place for the duration of construction. Spoils will be stockpiled in disturbed areas. All disturbances, vehicles, and equipment will be confined to the fenced/flagged areas.

When feasible, construction activities will minimize soil and vegetation disturbance to minimize impacts to soil and root systems. Upon completion of construction activities in any area, all unused materials, equipment, staking and flagging, and refuse shall be removed and properly disposed of, including wrapping material, cables, cords, wire, boxes, rope, broken equipment parts, twine, strapping, buckets, and metal or plastic containers. Any unused or leftover hazardous products shall be properly disposed of off site.

Hazardous materials must be properly handled, and spills or leaks must be promptly corrected and cleaned up according to applicable requirements. Vehicles shall be properly maintained to prevent spills or leaks. Hazardous materials, including motor oil, fuel, antifreeze, hydraulic fluid, grease, will not be allowed to enter drainage channels.

- APM BIO-5 Wildlife Protection.** The applicant shall undertake the following measures during construction and O&M activities to avoid or minimize impacts to wildlife. Implementation of all measures shall be subject to review and approval by BLM, USFWS, and CDFW.
- *Wildlife Avoidance.* Wherever feasible, project activities shall avoid interference with wildlife (including ground-dwelling species, birds, and bats) by allowing animals to escape from a work site prior to disturbance; conducting pre-construction surveys and exclusion measures for certain species as specified in other measures; and checking existing structures and foundations for wildlife that may be present and safely excluding them prior to removing the structures.
 - *Minimization of Traffic Impacts.* The applicant shall specify and enforce 15 miles per hour as the maximum vehicle speed limit to minimize risk of wildlife collisions and fugitive dust.
 - *Minimization of Lighting Impacts.* Night lighting, when in use, shall be designed, installed, and maintained to prevent side casting of light toward surrounding wildlife habitat. The color and pattern (e.g., steady vs. flashing lighting) of any Federal Aviation Administration (FAA) required safety lighting will be designed to minimize potential hazards (i.e., attraction and subsequent collision) to native birds and bats.
 - *Avoidance of Use of Toxic Substances.* Soil bonding and weighting agents used for dust suppression on unpaved surfaces shall be non-toxic to wildlife and plants.
 - *Minimization of Noise and Vibration Impacts.* The applicant shall minimize noise impacts to off-site habitat.
 - *Water.* Potable and non-potable water sources such as tanks, ponds, and pipes shall be covered or otherwise secured to prevent animals (including birds) from entering. Prevention methods may include storing water within closed tanks or covering open tanks with 2-centimeter (0.8-inch) netting. Dust abatement will use the minimum amount of water on dirt roads and construction areas to meet safety and air quality standards. Water sources (e.g., hydrants and tanks) shall be checked periodically by biological monitors to ensure they do not create puddles.
 - *Trash.* All trash and food-related waste shall be contained in vehicles or covered trash containers inaccessible to ravens, coyotes, and other wildlife and removed from the site regularly.
 - *Workers.* Workers shall not feed wildlife or bring pets to the project site. Except for law enforcement personnel, no workers or visitors to the site shall bring firearms or weapons.
 - *Wildlife Netting or Exclusion Fencing.* The existing fence surrounding the O&M facility will be updated to include desert tortoise exclusion fencing. The applicant may install temporary or permanent netting or fencing around equipment, work areas, or project facilities to prevent wildlife exposure to hazards such as toxic materials or vehicle strikes or to prevent birds from nesting on equipment or facilities. Bird deterrent netting will be maintained free of holes and will be deployed and secured on the equipment in a manner that, insofar as possible, prevents wildlife from becoming trapped inside the netted area or within the excess netting. The desert tortoise monitor (refer to APM BIO-6) or authorized biologist will inspect netting (if installed) twice daily, at the beginning and close of each workday. The desert tortoise monitor or authorized biologist will inspect the exclusion fence (if installed) weekly.

- *Wildlife Entrapment.* Project-related excavations shall be secured to prevent wildlife entry and entrapment. Holes and trenches shall be backfilled, securely covered, or fenced. Excavations that cannot be fully secured shall incorporate wildlife ramp or other means to allow trapped animals to escape. At the end of each work-day, a Desert Tortoise Monitor or authorized biologist shall ensure that excavations have been secured or provided with appropriate means for wildlife escape.
- *Covering Pipes and Other Hollow Construction Materials.* All pipes or other hollow construction materials or supplies will be covered or capped in storage or laydown areas. No pipes or tubing will be left open either temporarily or permanently except during active use or installation. Any construction pipe, culvert, or other hollow materials will be inspected for wildlife before they are moved, buried, or capped.
- *Procedures upon Discovery of Dead or Injured Wildlife.* Dead or injured wildlife will be reported to CDFW or the local animal control agency, as appropriate (special-status species must be reported to USFWS, BLM, and CDFW). An authorized biologist shall safely move the carcass out of the road or work area if needed and dispose of the animal as directed by the agency. If an animal is entrapped, an authorized biologist shall free the animal if feasible, or work with construction crews to free it, in compliance with safety requirements, or work with animal control or USFWS and CDFW to resolve the situation.
- *Pest Control.* No anticoagulant rodenticides, such as Warfarin or related compounds (indandiones and hydroxycoumarins), may be used within the project site, for off-site project facilities and activities, or in support of any other project activities.

APM BIO-6

Desert Tortoise Protection. All ground-disturbing activities shall avoid desert tortoise take either by installing temporary exclusion fencing or by on-site monitoring. The determination of whether to fence work areas will be made on a case-by-case basis depending on the schedule and extent of planned activities and the topography of the work site. Desert tortoises may be handled or translocated according to the Desert Tortoise Relocation Plan, to be prepared as specified in APM BIO-1, pending approval by both USFWS and CDFW.

The authorized biologist shall conduct or oversee pre-construction clearance surveys for each work area, watch for tortoises wandering into the construction areas, check under vehicles, and examine excavations and other potential pitfalls for entrapped animals. The authorized biologist shall be responsible for overseeing compliance with desert tortoise protective measures and for coordination with BLM, USFWS, and CDFW (described below). The authorized biologist shall have the authority to halt all project activities that are in violation of these measures or that may result in take of a desert tortoise. Only the authorized biologist, or the biological monitor with direct oversight from the authorized biologist, will handle or relocate desert tortoises, and only as specifically outlined in the Desert Tortoise Relocation Plan. Any incident that is considered by the authorized biologist to be noncompliant with these measures will be documented immediately.

The authorized biologist shall be responsible for overseeing compliance with desert tortoise protective measures and for coordination with resource agencies. The FCR (an authorized biologist) shall also have the authority to halt any project activities that may risk take of a desert tortoise or that may be inconsistent with adopted mitigation measures or permit conditions. Neither the FCR nor any other project employee may bar

or limit any communications between any resource agency or BLM and any biologist or biological monitor. Upon notification by another authorized biologist or biological monitor of any noncompliance, the FCR will ensure that appropriate corrective action is taken and documented. The following incidents will require immediate cessation of any project activities that could harm a desert tortoise: (1) location of a desert tortoise within a work area; (2) imminent threat of injury or death to a desert tortoise; (3) unauthorized handling of a desert tortoise, regardless of intent; (4) operation of construction equipment or vehicles outside a project area cleared of desert tortoise, except on designated roads; and (5) conducting any construction activity without a desert tortoise monitor where one is required.

The authorized biologist will be responsible for implementing, inspecting, or overseeing the following requirements in coordination with desert tortoise monitors, the applicant, and all its on-site contractors:

- *Monitoring of Desert Tortoise Exclusion Fence Installation (if necessary).* The desert tortoise exclusion fence installation will be monitored by the authorized biologist or by a biological monitor under the supervision of the authorized biologist, who will ensure that stipulations provided in the 2009 USFWS guidance for tortoise exclusionary fencing are met. Throughout the construction phase, the tortoise exclusionary fence will be checked regularly, including immediately after major rainfall events, to ensure its integrity. Repairs will be made within 48 hours of discovery to prevent any desert tortoises from entering the site.
- *Pre-Construction Clearance Survey for Fenced Areas.* For construction areas that would be fenced with desert tortoise exclusion fencing or standard construction fencing, clearance surveys will follow procedures outlined in the 2009 USFWS Desert Tortoise Field Manual or more current USFWS and CDFW guidance. The authorized biologist will conduct pre-construction clearance surveys immediately prior to initiation of ground-disturbing activities in desert tortoise habitat regardless of the time of year. The goal of a clearance survey is to find all tortoises on the surface and in burrows that could be harmed by construction activities. Surveys will cover 100% of the acreage to be disturbed. All potential burrows within 100 feet of construction activity will be marked and avoided to the extent practicable. Those that cannot be avoided will be excavated by the authorized biologist. Pre-construction clearance surveys within a fenced area shall be completed using perpendicular survey routes within the project area. Pre-construction clearance surveys cannot be combined with other clearance surveys conducted for other species while using the same personnel. Activities cannot start until two (2) negative results from consecutive surveys using perpendicular survey routes for desert tortoise are documented.
- *Monitoring and Oversight of Activities within Construction Phase Tortoise Exclusion Fencing.* Prior to construction of proposed project facilities, temporary or permanent desert tortoise exclusion fencing may be installed around the laydown area (temporary areas in use during construction and decommissioning phases only). The existing fence surrounding the O&M facility will be updated to include desert tortoise exclusion fencing. The fence will adhere to the design guidelines in the 2009 USFWS Desert Tortoise Field Manual. The authorized biologist will conduct or oversee a clearance survey before the tortoise fence is closed to ensure that no tortoises are in the work area. Any potentially occupied burrows will be avoided until field observations or

monitoring (e.g., with a motion-activated camera or fiber-optic mounted video camera) determines absence. If live tortoises or an occupied tortoise burrow are identified in the work area, tortoises shall be relocated according to the Desert Tortoise Relocation Plan by the authorized biologist or allowed to leave on their own accord before closing the fence. Either the fence shall be continuously monitored prior to closure, or clearance surveys shall be repeated prior to closure after tortoises are removed. Once installed, exclusion fencing will be inspected at least daily and following all rain events, and corrective action will be taken if needed to maintain it. Fencing around each work area will include a cattle guard or desert tortoise exclusion gate at each entry point. This gate will remain closed at all times except when vehicles are entering or leaving the project area. If it is deemed necessary to leave the gate open for extended periods of time (e.g., during high traffic periods), the gate may be left open as long as an authorized biologist or desert tortoise monitor is present to monitor for tortoise activity in the vicinity.

- *Monitoring and Oversight of Activities within Unfenced Work Areas.* As an alternative to exclusion fencing, any work conducted in an area that is not fenced to exclude desert tortoises must be monitored by a desert tortoise monitor who will stop work if a tortoise enters the work area. Work activities will only proceed at the site and within a suitable buffer area after the tortoise either has moved away of its own accord or has been relocated out of harm's way by an authorized biologist or by a desert tortoise monitor under the direct supervision of an authorized biologist. At work sites with potential hazards to desert tortoise (e.g., auger holes or steep-sided depressions) that are outside the desert tortoise exclusion fencing, the hazards will be securely covered or filled at the end of each workday. Note that work areas without tortoise exclusion fencing nonetheless will be clearly defined by other fencing materials, staking, flagging, or other measures (as described in APM BIO-4).
- *Tortoises under Vehicles.* The ground beneath parked vehicles will be inspected immediately before moving the vehicles. If a desert tortoise is found beneath a vehicle, the vehicle will not be moved until the desert tortoise leaves of its own accord.
- *Tortoises on Roads.* If a tortoise is observed on or near a road accessing a work area, the authorized biologist or desert tortoise monitor will be contacted immediately, and vehicles will stop to allow the tortoise to move off the road on its own.
- *Tortoise Observations.* Any time a desert tortoise is observed in or near a work site, project work activities will proceed at the site and within a suitable buffer area only after the tortoise either has moved away of its own accord or has been moved out of harm's way by the authorized biologist. If a desert tortoise is observed in an unfenced work area, construction will stop, and the tortoise will be allowed to move out of the area on its own. If it does not leave the site within 30 minutes, the authorized biologist may move the tortoise out of harm's way in a manner consistent with APM BIO-1 and USFWS handling guidance. If a desert tortoise or tortoise burrow is observed within the exclusion fencing, construction in the vicinity will stop, pending relocation of the tortoise(s).
- *Dead or Injured Desert Tortoises.* Upon locating a dead or injured desert tortoise, the authorized biologist will immediately notify BLM, the Palm Springs USFWS Office, and CDFW by telephone. Written notification must be made to the Palm Springs USFWS Office and CDFW within 5 days of the finding. The information provided must include the date

and time of the finding or incident (if known); the location of the carcass or injured animal; a photograph; the cause of death, if known; and other pertinent information.

APM BIO-7 Avoidance of Impacts to Special-Status Plants. Special-status plant species are not expected to occur on the project site or access route based on the results of focused botanical surveys. The applicant shall implement biological monitoring (APM BIO-2), WEAP training (APM BIO-3), and minimization of vegetation and habitat impacts (APM BIO-4) to identify and avoid any special-status plant species. In the unexpected circumstance where special-status plants occur and project impacts cannot be avoided, the applicant shall identify and implement CDFW-approved compensatory measures to offset the unexpected, unavoidable impacts, which may include habitat acquisition, habitat restoration/enhancement, habitat management, or fee payment that benefits special-status plant species.

APM BIO-8 Integrated Weed Management Plan. The applicant shall prepare and implement an IWMP to minimize or prevent invasive weeds from infesting the site or spreading into surrounding habitat. BLM must approve the IWMP. The IWMP must identify weed species occurring or potentially occurring in the project area, means to prevent their introduction or spread (e.g., vehicle cleaning and inspections), monitoring methods to identify infestations, and timely implementation of manual or chemical (as appropriate) suppression and containment measures to control or eradicate invasive weeds. The IWMP must identify herbicides that may be used for control or eradication and will specify avoidance of herbicide use in or around any environmentally sensitive areas. The IWMP must also include a reporting schedule, to be implemented by the applicant.

APM BIO-9 Monitoring and Reporting Schedule. Encounters with desert tortoise shall be immediately reported to the FCR, an authorized biologist, or a biological monitor. The authorized biologist shall maintain a record of all desert tortoises encountered during construction and decommissioning activities. Information recorded for each desert tortoise will include the location; date of observation; general condition of health and apparent injuries and state of healing; location of damaged exclusion fence (if applicable); if moved, location moved from and location moved to and whether the desert tortoise voided its bladder; and diagnostic markings (i.e., identification numbers or marked lateral scutes [shell plates]).

The project applicant shall provide monthly reports to BLM, USFWS, and CDFW throughout the construction and decommissioning phases that summarize the implementation of project measures pertaining to desert tortoise management. The reports must be prepared by the authorized biologist.

The project applicant will also provide annual reports to BLM, USFWS, and CDFW throughout the construction and decommissioning phases, and a final report upon completion of construction and decommissioning, that summarize the implementation of project measures pertaining to desert tortoise management. The reports will be prepared by the authorized biologist or other qualified biologist.

APM BIO-10 Trash Management. All garbage associated with the project during all phases of the project shall be contained in secure receptacles to prevent the introduction of food resources that could potentially attract or support common ravens, coyotes, and other predators or scavengers. Secure, wildlife-proof self-closing waste bins must be used for

all organic waste. To reduce the possibility of ravens or other scavengers ripping into bags and exposing the garbage, plastic bags containing garbage will not be left out for pickup. All such waste material must be kept in secure waste bins or dumpsters at all times.

APM BIO-11 Raven Management Plan. The project applicant shall develop and implement a raven management plan to address activities that may occur during the pre-construction, construction, decommissioning, and O&M phases of the project that may attract common ravens (*Corvus corax*), a nuisance species that is a subsidized predator of desert tortoises and other sensitive species in the project vicinity. The measures contained in the raven management plan shall be designed to:

- Identify conditions associated with the project that might provide raven subsidies or attractants.
- Describe management practices to avoid or minimize conditions that might increase raven numbers and predatory activities.
- Describe control practices for ravens.
- Address monitoring during construction and for the life of the project and discuss reporting requirements.

The project applicant must submit payment to the project sub-account of the Renewable Energy Action Team Account held by the National Fish and Wildlife Foundation to support the USFWS Regional Raven Management Program. The one-time fee shall be as described in the cost allocation methodology or more current guidance as provided by USFWS or CDFW. The contribution to the regional raven management plan will be \$105 per acre impacted.

APM BIO-12 Revegetation. The applicant shall prepare and implement a revegetation plan for all temporarily disturbed areas, to be reviewed and approved by BLM, USFWS, and CDFW. The revegetation plan must specify success criteria and materials and methods for site preparation, reseeding, maintaining, and monitoring revegetated areas in the following two categories:

- Temporarily disturbed areas where no future disturbance will occur (e.g., cut and fill slopes along roadways or wind turbine generator (WTG) pads, to be left undisturbed throughout the life of the project). The goal of revegetation on these sites will be restoration of vegetation and habitat characteristics to provide habitat for listed species comparable to what is present before the disturbance.
- Temporarily disturbed construction areas around WTGs, where future repairs or maintenance may necessitate further disturbance during the life of the project. The goal of revegetation on these sites will be to minimize dust, erosion, and invasive weeds from disturbed sites, but not to restore pre-disturbance habitat values (those impacts are mitigated through off-site compensation).

The nature of revegetation will differ according to each site, its pre-disturbance condition, and the nature of the construction disturbance (e.g., drive and crush vs. blading). The revegetation plan must include (a) soil preparation measures, including locations of recontouring, de-compacting, imprinting, or other treatments; (b) details for topsoil storage, as applicable; (c) plant material collection and acquisition guidelines, plants from the project site, as well as obtaining replacement plants from outside the project area

(sources for plant materials will be limited to locally occurring native species from the local area); (d) a plan drawing or schematic depicting the temporary disturbance areas described above; (e) the time of year that the planting or seeding will occur and the methodology of the planting; (f) a description of the irrigation, if used; (g) success criteria; (h) a monitoring program to measure the success criteria, commensurate with the revegetation plan's goals; and (i) contingency measures for failed revegetation efforts not meeting success criteria.

APM BIO-13 Post-Construction Monitoring for Birds and Bats. The applicant shall conduct post-construction mortality surveys for bird and bat populations on the project site.

APM BIO-14 Bird and Bat Conservation Strategy. The applicant shall prepare and implement a bird and bat conservation strategy (BBCS) in coordination with BLM, USFWS, and CDFW. The BBCS will specify (1) pre-construction survey schedule and methodology to locate nesting birds, including burrowing owl, near planned construction activities; (2) minimization and avoidance measures to prevent project-related nest abandonment or other potential take of nesting birds; (3) passive relocation methods to be implemented if an active burrowing owl burrow is located near work activity areas; (4) pre- and post-operation monitoring protocol for bird and bat mortality; (5) mortality thresholds for listed or sensitive birds that will trigger adaptive management measures, (6) an adaptive management strategy to be implemented in the event mortality thresholds are exceeded, and (7) a format and schedule for reporting monitoring data and adaptive management actions to BLM, USFWS, and CDFW.

APM BIO-15 Golden Eagle. The applicant shall work with USFWS to determine the best path forward for the proposed project to reduce the effects to golden eagles, which may include obtaining a golden eagle take authorization under the federal Bald and Golden Eagle Protection Act.

3.4.2 Impact Analysis

As described in Chapter 2, Project Description, the project would result in the construction, operation and maintenance, and decommissioning of eight new WTGs. The total overall potential ground disturbance would be 98.0 acres, of which 24 acres are on areas that have been disturbed by the existing Mesa Wind energy facility and 74 acres would be new disturbance. Of the 98.0 acres of total potential ground disturbance, 18.2 acres would be permanent, and 79.8 acres would be temporary. The temporary disturbance area includes 44.7 acres where ground disturbance is anticipated, including grading and vegetation removal associated with on- and off-site road improvements, WTG pads, laydown yard, and cut/fill. It also includes a 35.1-acre buffer area where no vegetation removal is anticipated and minimal ground disturbance from potential drive and crush could occur associated with trucks backing up or a pickup truck driving outside the graded area.

a. *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. The project would result in the substantial degradation of up to 74 acres of suitable and potentially occupied desert tortoise habitat and other special-status wildlife species. As such, the project has a potential to adversely affect several listed

threatened or endangered wildlife, including desert tortoise, as well as protected birds and other special-status wildlife with the potential to be present on the project site, including the off-site access road (each described below). With incorporation of APM BIO-1 through APM BIO-15 and implementation of MM BIO-1 (Habitat Compensation), MM BIO-2 (Bird and Bat Conservation Strategy Standards), MM BIO-3 (Restoration and Revegetation Standards), and MM BIO-4 (CVMSHCP Consistency), the project would avoid, minimize, and/or mitigate potential significant impacts to sensitive and special-status species.

Special-Status Plants

The following two federally listed endangered plants occur in the region, but neither species has been located on the site during field surveys. Refer to BRTR Section 3.1 for additional discussion.

Coachella Valley Milk-Vetch. Coachella Valley milk-vetch (*Astragalus lentiginosus* var. *coachellae*) is primarily found on loose aeolian (wind transported) sands or, less often, on alluvial (water transported) sands, on dunes or flats and along disturbed margins of sandy washes. A patch of CVMSHCP-modeled habitat for Coachella Valley milk-vetch is within the project site (refer to BRTR Figure 3; Appendix C-1). No Coachella Valley milk-vetch were located in the modeled habitat (or elsewhere on the project site).

Triple-Ribbed Milk-Vetch. Triple-ribbed milk-vetch (*Astragalus tricarinatus*) is found in arroyos, canyons, and hillsides between about 1,400 and 4,000 feet above mean sea level. It grows in Whitewater Canyon just east of the project disturbance area and in nearby canyons, hills, and mountains to the east. There is no CVMSHCP-modeled habitat within the project site and field surveys did not locate triple-ribbed milk-vetch. Potentially suitable habitat is present in the project disturbance area but there is a low potential that it may grow in the study area due to negative results of several field surveys.

Other Special-Status Plants. BLM maintains a list of sensitive plant species and manages these species to provide protections comparable to species that may become listed as threatened or endangered. None of these species has been documented from the project site and none are expected to occur there. Several public agencies and private organizations have identified plants of conservation concern. CDFW compiles these species, including CDFW and California Native Plant Society rankings of California Rare Plant Rank (CRPR) 2, 3, or 4, in its compendium of "Special Plants." None of these species have been documented on the project site and none are expected to occur. The California Desert Native Plants Act protects certain native plants from unlawful harvest; none of these protected plants have been documented on the project site and none are expected to occur there. Refer to Table 4 of the BRTR (Appendix C-1) for additional information on all special-status plants.

Summary of Impacts to Special-Status Plants. No impacts to special-status plants are anticipated from the project because site-specific botanical surveys did not detect any special-status plant species; therefore, special-status plant species are not expected to occur within the project site or access route improvement areas. However, APM BIO-7 (Avoidance of Impacts to Special-Status Plants) would ensure that any unanticipated potential impacts are avoided or minimized.

Special-Status Wildlife

Federally and State Listed Threatened and Endangered Species

The federally and state listed threatened desert tortoise occurs on the project site. Several federally listed birds have been reported during either breeding or migration seasons in the surrounding area but are not expected to occur on the site except during migration. Refer to BRTR Section 3.2 and BRTR Table 4 (Appendix C-1) for additional details.

Desert Tortoise. Under CESA, the desert tortoise is listed as threatened and listed as a candidate species for endangered status, and the Mojave population (i.e., west of the Colorado River) is listed as threatened under the federal ESA. The listed Mojave population is now recognized as a distinct species from the Sonoran desert tortoise (*Gopherus morafkai*). East of the Colorado River, the desert tortoise's range extends into the Arizona deserts and south through Sonora (Mexico). All wild desert tortoises in California are part of the state and federally listed Mojave population (*G. agassizii*). Desert tortoises and their sign have been observed throughout the site and on the access road southwest of the site over many years. Desert tortoises are able to travel freely throughout the site and surrounding lands. Existing O&M activities (e.g., vehicle use, handling trash and waste material, and water use) are managed to minimize potential risk to wildlife, including desert tortoise, although there is some risk of vehicle collision under existing conditions. Existing lattice steel structures are used as perch and nest sites by common ravens, which are predators of hatchling and subadult desert tortoises. During the most recent tortoise survey, all the desert tortoises and sign were located in the northeastern portion of the project site. Refer to Table 5 of the BRTR (Appendix C-1) and the accompanying text for additional discussion of desert tortoise occurrence.

Without avoidance or minimization measures, the project could cause injury or death of desert tortoises during decommissioning of legacy WTGs, construction, or O&M activities. Desert tortoises or eggs could be harmed during clearing or grading activities, or tortoises could become entrapped within open trenches and pipes. The project could also cause injury or death of tortoises or eggs from vehicle strikes. Other effects could include individual tortoises or eggs being crushed or entombed in their burrows, disruption of tortoise behavior during construction or operation of facilities, and disturbance by noise or vibrations from heavy equipment. Desert tortoises may be attracted to the construction area by shade beneath vehicles, equipment, or materials, or the application of water to control dust, placing them at higher risk of injury or death. These impacts to desert tortoises would be minimized or avoided by incorporation of APM BIO-1 through APM BIO-6 and APM BIO-8 through APM BIO-12 (refer to list below; refer to Section 3.4.1 for full text of these APMs).

Without minimization and avoidance measures, project construction and operation could create "subsidies" (human-derived food sources or other attractants) such as food, water, or nest sites for common ravens or other predators. Ravens prey on juvenile desert tortoises, contributing to the overall decline in tortoise recruitment. However, the repower also would remove 460 existing lattice steel legacy (permitted) WTG towers, eliminating these nest and perch site subsidies for common ravens.

Other indirect impacts include the introduction and spread of invasive weeds and increased human presence. These effects to desert tortoise would be avoided or minimized through APM BIO-1 through APM BIO-6 and APM BIO-8 through APM BIO-12, listed below.

The project applicant would avoid or minimize impacts to desert tortoise on site by incorporating the following APMs into the project design:

- APM BIO-1: Wildlife Relocation
- APM BIO-2: Biological Monitoring
- APM BIO-3: Worker Environmental Awareness Program Training
- APM BIO-4: Minimization of Vegetation and Habitat Impacts
- APM BIO-5: Wildlife Protection
- APM BIO-6: Desert Tortoise Protection

- APM BIO-8: Integrated Weed Management Plan
- APM BIO-9: Monitoring and Reporting Schedule
- APM BIO-10: Trash Management
- APM BIO-11: Raven Management Plan
- APM BIO-12: Revegetation

The project would substantially degrade approximately 98 acres (of suitable and potentially occupied desert tortoise habitat (unvegetated/ruderal, brittlebush scrub, California juniper woodland, California sagebrush–buckwheat scrub, Creosote bush–brittle bush scrub). The loss of 98 acres of desert tortoise habitat would be a significant impact absent mitigation. With the incorporation of MM BIO-1 (Habitat Compensation), the loss of desert tortoise habitat would be considered mitigated.

MM BIO-1 Habitat Compensation. Prior to issuance of notice to proceed, the project applicant shall prepare, and obtain U.S. Fish and Wildlife Service (USFWS) (if required) and California Department of Fish and Wildlife (CDFW) approval of, a desert tortoise (*Gopherus agassizii*) habitat compensation strategy that includes the information required in this measure describing how the loss of desert tortoise habitat from the proposed project will be compensated. The project applicant shall compensate for the loss of 98 acres of desert tortoise habitat through acquisition of land. The applicant shall acquire, protect, and transfer 143.1 acres of desert tortoise habitat and associated funding for the acquired lands, as specified below OR purchase 143.1 acres of desert tortoise species credits from a CDFW-approved mitigation or conservation bank prior to initiating construction. Furthermore, the applicant shall, when implementing APM BIO-12, also prepare a restoration and revegetation plan for 55.8 acres of desert tortoise habitat subject to temporary disturbance to restore these areas to pre-project habitat quality. The restoration and revegetation plan shall be approved by CDFW prior to implementation and shall be implemented by the applicant within 6 months following completion of project construction. Land acquisition, initial protection or maintenance, and management activities shall be approved by USFWS and CDFW, and completed prior to construction activities OR within 18 months of start of construction if security is provided to CDFW.

Compensation Lands Selection – The compensation lands selected for acquisition shall, at a minimum:

- a. Be in the Colorado Desert Recovery Unit.
- b. Provide habitat for desert tortoise with capacity to regenerate naturally when disturbances are removed.
- c. Shall support desert tortoise habitat suitable for all life stages.
- d. Be prioritized near larger blocks of lands that are either already protected or planned for protection, or which could feasibly be protected in the future.
- e. Have live desert tortoise on the conserved lands or on lands abutting the conserved lands.
- f. Not be characterized by high densities of invasive species, or other uses that might jeopardize habitat recovery and restoration.

- g. Have no detrimental rights-of-ways (ROWs) or encumbrances, as determined by CDFW.
- h. Mineral rights shall be relinquished unless agreed upon in writing based upon the Mineral Rights Assessment Report.

The project applicant shall obtain approval of the selected compensation lands from USFWS (if required by USFWS) and CDFW prior to acquisition.

Compensation Lands Acquisition Requirements – Compensation lands shall be acquired through fee title, conservation easement, or other legal mechanism approved by CDFW. Compensation lands shall be maintained and managed through a long-term management fund established by the project applicant. The long-term management fund shall be based on a Property Analysis Record (PAR) or PAR-like analysis of initial costs and ongoing costs approved by USFWS and CDFW. The project proponent shall establish a non-wasting endowment, or other funding mechanism suitable to the USFWS and CDFW, and that fund shall be held by the endowment manager, which shall be either CDFW or another entity qualified pursuant to Government Code sections 65965-65968, as amended. With implementation of MM BIO-1 and the APMs identified above, the project’s potential impacts to desert tortoise would be less than significant. In addition, the project is subject to ESA and CESA consultation and will be subject to conditions that may be identified in the USFWS Biological Opinion and in CDFW’s incidental take permit.

Coastal California Gnatcatcher. Coastal California gnatcatcher (*Polioptila californica californica*; federally listed threatened) is primarily found in coastal Southern California and inland to the Banning, California, area. The coastal California gnatcatcher and several shrubs that are characteristic of its habitat reach their inland range margins in the San Gorgonio Pass area. The species has been reported by BLM staff along the PCT north of the project site. There is a low possibility that coastal California gnatcatcher may occur on the project site; if it does, it would most likely be outside the breeding season during the dispersal phase of its life cycle. The project is not expected to affect occupied coastal California gnatcatcher habitat, although the birds could periodically visit the site, where they could be subject to minimal disturbance by decommissioning, construction, or O&M activities. Coastal California gnatcatchers, if present, also could be subject to WTG collision (addressed under Other Protected Birds, below). With incorporation of the APMs listed below and under Other Protected Birds, potential impacts to coastal California gnatcatcher (if any) would be minimal and less than significant.

- APM BIO-2: Biological Monitoring
- APM BIO-3: Worker Environmental Awareness Program Training
- APM BIO-4: Minimization of Vegetation and Habitat Impacts
- APM BIO-5: Wildlife Protection
- APM BIO-8: Integrated Weed Management Plan
- APM BIO-9: Monitoring and Reporting Schedule
- APM BIO-12: Revegetation
- APM BIO-14: Bird and Bat Conservation Strategy

Swainson’s Hawk. Swainson’s hawk (*Buteo swainsoni*; state listed threatened) does not nest or overwinter in the project region but may migrate over the site twice a year. They could be subject to WTG

collision during brief migratory flights through the area (addressed under Other Protected Birds). With incorporation of the APMs identified under Other Protected Birds, potential impacts to Swainson's hawk (if any) would be minimal and less than significant.

Riparian Birds. Threatened or endangered riparian birds, including least Bell's vireo (*Vireo bellii pusillus*) and southwestern willow flycatcher (*Empidonax traillii extimus*) (both state and federally listed endangered) and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*; state listed endangered and federally listed threatened) could occur in riparian habitat along the Whitewater River east of the project site, either during nesting season (least Bell's vireo have been documented nesting there) or during migratory stopover periods (southwestern willow flycatcher and western yellow-billed cuckoo have been documented in the region briefly during migration, but not during their breeding season). Any of these species could infrequently fly over the site but would not nest or overwinter there. They could be subject to WTG collision during brief migratory flights through the area (addressed under Other Protected Birds). With implementation of the APMs listed under coastal California gnatcatcher and under Other Protected Birds, potential impacts to these species (if any) would be minimal and less than significant.

Other Special-Status Wildlife Species

Numerous protected birds have the potential to occur or migrate through the project area, and the project site has the potential to support other special-status wildlife. Refer to Table 4 of the BRTR (Appendix C-1) for additional details.

Other Protected Birds. Bird diversity and abundance at the project site is summarized in Table 1 and Sections 2.2.4 and 3.3 of the BRTR (Appendix C-1; also refer to Appendices C-3 through C-9). Bird surveys were conducted by Bloom Biological, including bird use counts (long-period point counts, principally for golden eagles and other raptors), small bird counts (structured point-count surveys), and special-status bird surveys (repeated meandering transects throughout the site). Study designs were based on pre-permitting assessment criteria for biological resources as recommended in the USFWS Land-Based Wind Energy Guidelines (USFWS 2012). Bloom Biological conducted field surveys from September 2012 through August 2013 to evaluate the abundance, diversity, and patterns of use of birds and other vertebrates on and in proximity to the proposed project site across seasons. Detailed methodology is described in the Mesa Wind Project 2012–2013 Final Avian Survey Report (Appendix C-3).

Additional bird surveys were conducted by Western Ecosystems Technology between November 2015 and November 2016. These surveys focused on large birds and eagles. The principal objectives of the large bird/eagle observation surveys were to (1) provide site-specific bird resource and use data that would be useful in evaluating potential impacts of the proposed project on diurnal (active in the daytime) raptors and other large bird groups and (2) collect data to evaluate the temporal and spatial use of the Mesa Wind energy facility project site specifically by golden eagles to support development of an eagle conservation plan for the project, if deemed warranted. Weekly fixed-point large bird/eagle surveys were conducted at three survey stations located throughout the project site from November 13, 2015, through November 7, 2016. Detailed methodology is described in Large Bird Use Surveys for the Mesa Wind Energy Repower Project, Riverside County, California Final Report (Appendix C-6).

A compilation of known golden eagle nests within a 10-mile radius of the project site was prepared in coordination with USFWS and Bloom Biological (refer to BRTR Figure 5; Appendix C-1). Field surveys to identify golden eagle nesting activity were conducted during June 2019 by Bloom Biological, using a combination of helicopter surveys and the Palm Springs Aerial Tram.

- **Eagles.** The project site is suitable foraging habitat for the golden eagle but not suitable golden eagle nesting habitat. There are several documented golden eagle nest locations within a 10-mile radius of

the site, including locations to the north in the San Bernardino Mountains and to the south in the San Jacinto Mountains. Field surveyors have recorded many golden eagle observations over the site and there have been two known golden eagle fatalities on the existing project site, one in the mid-1990s and one in approximately 2017 (refer to Appendix C-1, BRTR Section 3.2, as well as Appendix C-4, Appendix C-5, and Appendix C-8). There has been one bald eagle observation over the site, although no suitable bald eagle nesting habitat and no open water foraging habitat is present in the vicinity, and the eagle was presumably in transit to other areas more distant from the site.

- **Special-Status Birds.** Other special-status bird species were identified during bird use surveys, including peregrine falcon (*Falco peregrinus*), loggerhead shrike (*Lanius ludovicianus*), northern harrier (*Circus cyaneus*), Vaux's swift (*Chaetura vauxi*), and ferruginous hawk (*Buteo regalis*) (Appendix C-6). BLM sensitive birds and other special-status birds potentially occurring on the site include burrowing owl (*Athene cunicularia*), several raptors (birds of prey), upland perching birds, and local riparian birds such as summer tanager (*Piranga rubra*), yellow warbler (*Setophaga petechia*), and yellow-breasted chat (*Icteria virens*), which may nest in the Whitewater River area and may periodically fly over the site. Refer to the BRTR (Appendix C-1) for further discussion.
- **Migratory Birds.** The federal MBTA and the California Fish and Game Code prohibit take of most birds (excluding authorized take such as licensed hunting), including nestlings or eggs. These statutes apply to special-status birds (above) as well as common species. The entire project site and surrounding area provides suitable nesting habitat for numerous resident and migratory bird species. A total of 90 species have been reported on the site during various field surveys (refer to the BRTR, Appendix C-1). All bird species that occur in the San Gorgonio Pass area during all or a part of their life history (e.g., breeding, wintering, or migration) could occasionally use the site or fly over it.
- **Migration Flyway.** The San Gorgonio Pass is a high-use nocturnal flyway for migratory songbirds and possibly for migratory bats (refer to Other Special-Status Wildlife for discussion of special-status bat species). Researchers estimated 32 million birds flew through the Coachella Valley during spring of 1982. A large proportion of them would have migrated through the San Gorgonio Pass, at the northwest margin of the Coachella Valley. All bird species that migrate through the San Gorgonio Pass could occasionally stop over on the site or fly over it.

Impacts to Protected Birds. The project would substantially degrade approximately 74 acres of potential nesting and foraging habitat for protected birds. Although many of the potentially occurring protected birds are migratory or otherwise would not nest on the project site, construction of the proposed project could cause impacts to nesting birds and the loss of active nests without implementation of the APMs. With implementation of APM BIO-2 (Biological Monitoring), APM BIO-3 (Worker Environmental Awareness Program Training), APM BIO-4 (Minimization of Vegetation and Habitat Impacts), APM BIO-5 (Wildlife Protection), APM BIO-8 (Integrated Weed Management Plan), APM BIO-9 (Monitoring and Reporting Schedule), APM BIO-12 (Revegetation), and APM BIO-14 (Bird and Bat Conservation Strategy), the potential impact of the proposed project on nesting protected birds during construction would be less than significant. The loss and degradation of nesting and foraging habitat for protected birds would be avoided and minimized through the APMs. In addition, the proposed project would restore approximately 20 acres of currently disturbed habitat as part of the decommissioning of the existing legacy WTGs. Furthermore, the habitat compensation provided under MM BIO-1 for desert tortoise is likely to provide potential nesting and foraging habitat that would benefit a similar assemblage of desert bird species. With implementation of the APMs and MM BIO-1, the loss and degradation of nesting and foraging habitat for protected birds would be less than significant.

As described in the Background (Section 1.1), the existing Mesa Wind energy facility was built in 1983–1984 and consisted of 460 65-kilowatt WTGs with a mix of 85-foot and 140-foot structures. Approximately 420-430 WTGs were in operation when the applicant purchased the facility in 2013, and BLM issued an amended ROW grant to the applicant in 2018 for the 30 MW wind facility, including all 460 WTGs. Due to past on-site fires and safety concerns, the 129 WTGs currently in operation were refurbished first while determining next steps for the remaining 331 WTGs. The existing conditions (460 WTGs) present an unquantified risk of collision to all birds, including protected bird species. The proposed project would remove the existing WTGs and install and operate 8 new larger, taller WTGs. The risk of bird collision is influenced by numerous factors, including species, species use, species behavior and spatial use, bird exposure, and site characteristics. There is a low risk to protected birds during project construction (collision with construction equipment, construction noise and lighting); however, the primary project risk to these species would be collision with the WTGs or other infrastructure during operation of the project. As a repower project, the potential net effect of future project operation would be the difference between the risk to these species under the existing authorization compared with the potential future risk under the proposed project.

A factor in bird exposure to collision risk is the rotor swept area and height. Table 3.4-1 compares the rotor swept area of the existing Mesa Wind energy facility WTGs and the proposed project WTGs. The existing facility is permitted to operate, and has operated, all 460 WTGs with a total rotor swept area of 81,282 square meters. The proposed project would install and operate 8 WTGs with a total rotor swept area of 86,010 square meters, resulting in a 5.85% increase in total rotor swept area relative to the existing facility. Maximum rotor swept height for the proposed project would be 492 feet (150 meters).

Although the proposed project would result in a similar rotor swept area compared to the existing permitted facility, the project's rotor swept area would be from 8 WTGs with maximum rotor swept heights of 492 feet compared to the existing facility's 460 WTGs with maximum rotor swept heights of 164 feet. Furthermore, repowering this site will remove the rotor swept area that occurs at 460 WTGs over the entire site footprint and replace it with 8 WTGs at discrete locations with a greater distance between the rotor swept areas of each WTG. The project's increased spacing and less widespread rotor swept area may reduce bird risk exposure for certain bird species.

Table 3.4-1. Rotor Swept Area Comparison – Existing and Proposed Mesa Wind Energy Facility

Wind Energy Facility	Number of WTGs	Rotor Radius	Rotor Swept Area (Each)	Rotor Swept Area (Total)
		(Meters)	(Square Meters)	
Existing Mesa Wind energy facility as permitted ¹	460	7.5	176.7	81,282.0
Proposed Mesa Wind Repower Project	8	58.5	10,751.3	86,010.4

Notes: WTG = wind turbine generator.

¹ For informational purposes only, the rotor swept area for the 129 currently operating WTGs at the existing facility is 22,794.3 square meters.

Although the project's rotor swept area would only increase by 5.85% and would occur at only 8 WTGs with greater spacing than the existing conditions, the rotor swept height would be higher than under the existing conditions. Birds—for example, raptors—that may use soaring behavior within the rotor swept zone could be exposed to collision risk from the project. WEST (2017; Appendix C-6) evaluated bird diversity, use, behavior, and risk exposure for the project, including large birds and other special-status

bird species. A relative exposure index based on flight height observations and relative abundance (defined as the use estimate) was calculated for each bird species. Common raven (*Corvus corax*), American kestrel (*Falco sparverius*), and red-tailed hawk (*Buteo jamaicensis*) had the highest exposure indices of all large birds observed during the surveys (0.44, 0.19, and 0.14, respectively); all other large bird species had exposure indices of 0.01 or less. The relatively low raptor use observed at the site contributes to the low exposure index. The other special-status bird species incidentally observed occasionally during this study would also have an exposure risk. Therefore, although the project’s rotor swept zone would be higher and cover 5.85% more area than the existing conditions, bird diversity, abundance, and use at the site indicate that the risk exposure would be relatively low and would primarily be associated with common raptor species.

In addition, because the project will remove all the older-generation WTGs, it is anticipated that the proposed project would result in a reduction in the level of bird collision risk per megawatt (MW) compared to the existing conditions (Aspen 2020). Studies from other repower projects in California have demonstrated a reduction in bird fatality rates per MW compared to the original wind energy facilities. At the Altamont Pass Wind Resource Area, the number of raptor fatalities on a per MW basis appears to be declining substantially (67%–96%, depending on the species) as a result of replacing smaller, low-capacity WTGs with taller, higher-capacity WTGs (Smallwood and Karas 2009; ICF International 2016). The fatality rate for all bird species combined was 78% lower after repowering at one of the facilities in the Altamont Pass Wind Resource Area (Brown et al. 2013). Because repower projects are still a relatively new field of study, there is limited information regarding the effects of increased WTG height or increased MW capacity on fatality rates of birds or bird groups and further analysis is needed (Allison et al. 2019).

Consistent with APM BIO-14, the applicant has prepared a draft programmatic bird and bat conservation strategy (pBBCS) for the project (Aspen 2020). The pBBCS was prepared according to the USFWS Land-Based Wind Energy Guidelines (USFWS 2012) and was developed to address potential impacts to bird and bat species from operation of the proposed facility using a similar approach as the USFWS-approved pBBCS for the San Jacinto II Wind Project, which is a repower project located in the project region designed comparable to the proposed project. The San Jacinto II pBBCS was specifically intended to be applicable for future, similar projects and served as a model for the project pBBCS.

Based on the proposed project risk assessment provided in the draft pBBCS using project bird data and publicly available reports for 15 projects from nearby San Geronio Wind Resource Area facilities, bird fatality rates at the proposed project are expected to be low. Specifically, the bird fatality rates expected at the proposed project will likely be comparable to the estimated fatality rates at the Mountain View IV (1.63 birds per MW per year; 90% confidence interval: 0.96–2.43) and Dillon Springs (4.71 birds per MW per year; 90% confidence interval: 3.22–6.99) wind energy facilities. These facilities are expected to be the most predictive of fatality rates at the proposed project because they are situated within a few miles of the proposed project site and likely share many of the same bird and bat species present at the project site (Table 3.4-2). At this anticipated fatality rate, it is unlikely that collisions with WTGs at the project site would result in population-level impacts to any species (Aspen 2020).

Table 3.4-2. Rotor Swept Area Comparison – Comparable Nearby Facilities and Proposed Mesa Wind Repower Project

Wind Energy Facility	Number of WTGs	Rotor Radius (Meters)	Rotor Swept Area (Each)	Rotor Swept Area (Total)
			(Square Meters)	
Mountain View IV ^a	49	30.7	2,961	145,089

Table 3.4-2. Rotor Swept Area Comparison – Comparable Nearby Facilities and Proposed Mesa Wind Repower Project

Wind Energy Facility	Number of WTGs	Rotor Radius (Meters)	Rotor Swept Area (Each)	Rotor Swept Area (Total)
			(Square Meters)	
Dillon ^b	45	28.5	2,552	114,840
Proposed Mesa Wind Repower Project	8	58.5	10,751	86,010

Notes: WTG = wind turbine generator.

^a wind-turbine-models.com 2020.

^b The Wind Power 2017.

For golden eagle, the eagle collision risk for the existing project (460 existing permitted WTGs) and for the proposed project were evaluated using the USFWS Bayesian collision risk model (Appendix C-9). The annual predicted number of fatalities for the existing conditions, at the 80th credible level¹, ranged from 0.03 (using the 2015–2016 data) to 0.09 (using the 2012–2013 data) for a combined annual predicted number of fatalities of 0.07. The annual predicted number of fatalities for the proposed project, at the 80th credible level, ranged from 0.04 (using the 2015–2016 date) to 0.09 (using the 2012–2013 data) for a combined annual predicted number of fatalities of 0.07. Wind energy projects permitted for golden eagle take in California have estimated annual predicted take ranging from 0.3 to 2.3; therefore, the annual predicted number of fatalities for the proposed project would be considerably lower than any other wind energy projects permitted for eagle take in California.

Based on the evaluation above, the proposed project is not expected to result in a substantial increase in bird collision risk relative to the current conditions and is not expected to result in population-level impacts to any species. Furthermore, APM BIO-13 (Post-Construction Monitoring for Birds and Bats), APM BIO-14 (Bird and Bat Conservation Strategy), and APM BIO-15 (Golden Eagle) would further avoid and minimize the potential for bird collisions from the project. These APMs specify that, among other measures, the applicant shall implement a 2-year baseline fatality study, operational fatality monitoring as a part of its WEAP, and fatality data management and reporting. With implementation of these APMs, the collision impacts of the proposed project on protected birds during construction and operation would be avoided and minimized; however, bird fatalities, including protected birds, from the proposed project may still occur. A substantial increase in bird fatalities above the existing conditions is not anticipated because the proposed project is a repower project with a nominal increase in rotor swept area sited within a region of high-intensity wind energy development, and the results of on-site and regional pre- and post-construction bird studies indicate that bird fatality rates for the proposed project would be low. Although substantial effects from bird fatalities are not expected, bird fatalities that substantially exceed the amount expected based on this impact analysis and the supporting documentation would be significant if not mitigated. With implementation of MM BIO-2 (Bird and Bat Conservation Strategy Standards), the pBBCS will include standards that would mitigate the effects of substantially higher avian fatalities should they occur during operation of the proposed project.

MM BIO-2 Bird and Bat Conservation Strategy Standards. The bird and bat conservation strategy (BBCS) shall include a 2-year baseline fatality study (one additional year of baseline

¹ *Credible level* is a probability level used to set the credible intervals for a Bayesian analysis. In simplified terms, an 80% credible interval means the same result would occur on 80% of the occasions when a study is repeated multiple times using samples from the same population.

monitoring required if both baseline years are drought years) conducted consistent with monitoring protocols presented in the 2012 U.S. Fish and Wildlife Service (USFWS) Wind Energy Guidelines, as well as the 2007 California Energy Commission and California Department of Fish and Game California Wind Energy Guidelines (CEC Guidelines). The bird and bat mortality monitoring shall be conducted under direction of a biologist approved by the California Department of Fish and Wildlife (CDFW), USFWS, and Bureau of Land Management (BLM). Carcass searches shall occur once every 2 weeks at 30% of the wind turbine generators (WTGs), or more if needed, as recommended in the CEC Guidelines. Site selection for field monitoring shall be subject to review and approval by CDFW, USFWS, and BLM. Data analysis will include estimates of carcass persistence on the site (due to potential removal by scavengers) and evaluation of researcher efficiency.

The project applicant shall prepare and annual report on avian and bat fatalities at the project for each year of baseline monitoring, including a summary of the number and type of fatalities, estimated annual fatality rates including the results of bias correction and detection probability, and a summary of adaptive management actions that have been or may be undertaken. Annual reports shall be provided to BLM, USFWS, and CDFW during the first quarter of each year following the monitoring year.

The project applicant, CDFW, USFWS, and BLM shall review results of the 2-year baseline fatality monitoring study to determine whether adaptive management measures should be considered to further avoid, minimize, or compensate for any unanticipated substantial increase in impacts to birds and bats due to the project, using the following thresholds:

- **Level 1:** The number of fatalities caused by the project WTGs:
 - Federally or state-listed species or fully protected species²: 1 fatality at project
 - California species of concern, watchlist, and local species of concern: 2 bird or 2 bat fatalities at project
 - Raptors³ with no status: 3 fatalities at project
 - Bird or bat species with no status: 4 fatalities per WTG per year

If the Level 1 threshold is reached, the project operator shall notify CDFW, USFWS, and BLM of fatalities within 24 hours for federally or state-listed species or fully protected species and within 7 days for all other fatalities. The carcass search frequency and intensity shall be increased to assess the pattern or frequency of fatalities specific to the WTGs and the proposed repowered Mesa Wind energy facility. The additional information would facilitate a more informed response if mortality levels reach Level 2. Details of the enhanced monitoring program will be subject to CDFW, USFWS, and BLM approval.

² Under California Fish and Game Code §3511, a fully protected bird may not be taken or possessed at any time. As documented in the Biological Resources Technical Report (Appendix C-1) and the bird use studies (Appendix C-3 and C-6), golden eagle and American peregrine falcon (*Falco peregrinus*) are the only fully protected bird species with the potential to occur in the vicinity of the project site.

³ Under California Fish and Game Code §3503.5, it is unlawful to take possess, or destroy any birds of the orders Falconiformes or Strigiformes (birds-of-prey). A number of falcons, hawks, eagles, and owls have the potential to migrate, winter, or forage in the vicinity (see the Biological Resources Technical Report in Appendix C-1) and were detected using the site during bird use studies (Appendix C-3 and C-6).

- **Level 2:** The number of fatalities caused by the project WTGs:
 - Federally or state-listed species or fully protected species: 2 fatalities at project
 - California species of concern, watchlist, and local species of concern: 3 bird or 3 bat fatalities at project
 - Raptors with no status: 5 fatalities at project
 - Bird or bat species with no status: 12 fatalities per WTG per year

If recorded bird or bat fatalities reach the threshold criteria for Level 2, the project operator shall notify CDFW, USFWS, and BLM (the agencies) within 7 days. The cause of bird and bat fatalities is often indeterminate, and the agencies shall require Level 2 response options only if they determine with reasonable certainty that the fatalities are caused by project WTG operation. The following Level 2 response options shall be considered by the agencies, in consultation with the project operator, and implemented if determined by CDFW to be feasible and likely to reduce further fatalities similar to those that triggered the Level 2 response:

- Habitat modifications to make the site less attractive to impacted species, including intensified efforts to reduce the prey base (e.g., ground squirrels). However, no anticoagulant rodenticides may be used within the project site or in support of any project activities.
- Project modifications. Modifications must have a sound scientific basis, but need not be proven definitely effective, such as installing “dummy towers” at the ends of WTG rows; painting of WTG blades on selected WTGs to increase their visibility; audible warnings on towers; or other new or experimental technologies to divert birds and bats or react to the presence of at-risk species. If appropriate, a modification may be implemented as a controlled experiment to test efficacy in reducing mortality.
- Selective curtailment of WTG operation, dependent on specific locations of mortalities or on daily or seasonal bird or bat activity, to be determined from monitoring results.
- Restricting WTG operation at low wind speeds (i.e., increasing the “cut-in speed,” the wind speed at which the WTGs begin generating electricity) to 5.0 meters per second (11.2 miles per hour) or greater.

If any of these measures are implemented, the project operator, in consultation with the agencies, will implement an effectiveness evaluation program to assess the intended and unintended effects of the measure. The measure will be reversed, discontinued, or modified if little or no reduction in mortality is demonstrated within a reasonable time or if it leads to unintended adverse consequences, as determined by the agencies.

With incorporation of the APMs, including the pBBCS prepared pursuant to APM BIO-14, and implementation of MM BIO-2 (Bird and Bat Conservation Strategy Standards), the potential impacts on protected birds would be less than significant.

Other Special-Status Wildlife. The project site has the potential to support other special-status reptiles and mammals, as summarized below. Refer to Table 4 of the BRTR (Appendix C-1) for additional details.

- **Reptiles.** Red diamond rattlesnake (*Crotalus ruber*) and Blainville's (coast) horned lizard (*Phrynosoma blainvillii*) reach the eastern margin of their geographic distributions in the project vicinity. Suitable habitat is present for both species on the project site and both could occur on the project site.
- **Bats.** Four bat species detected on the project site are managed as BLM sensitive species: pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), fringed myotis (*Myotis thysanodes*), and Yuma myotis (*M. yumanensis*). One additional BLM sensitive bat species, western mastiff bat (*Eumops perotis californicus*), was recorded in 2016 at a nearby wind energy facility site. Several other bats known from the vicinity are CDFW special animals. Special-status bats of the local area roost in rock crevices, tunnels, or caves and one species (western yellow bat [*Lasiurus xanthinus*]) roosts in the foliage of riparian trees and palm tree skirts. During the breeding season, bats generally roost during the day, either alone or in communal roost sites, depending on the species. All special-status regional bats are insectivorous, catching their prey either on the wing or on the ground. Several special-status bats, including BLM sensitive species, are likely to forage over the site or fly over the site on the way to foraging habitat elsewhere (e.g., the Whitewater River to the east). Rock crevices on the project site may provide some roosting habitat for common bat species, but the likelihood of sensitive bat species roosting on site is low because the site does not provide suitable tunnels, caves, or trees, and rock crevices on site are limited.

Bat fatality rates from collision at the project site are expected to be low and within the range of those documented at nearby wind energy facilities. Specifically, the bat fatality rate would likely be comparable to the estimated fatality rates at the Mountain View IV (0.97 bats per MW per year; 90% confidence interval: 0.28–1.89) and Dillon (2.17 bats per MW per year; 90% confidence interval: 1.37–3.41) wind energy facilities. The proposed WTGs for the project are taller and have a larger rotor radius than the WTGs at these two facilities. There is potential for the taller WTGs at the project site to increase the bat collision risk compared to that at the Mountain View IV and Dillon wind energy facilities. A study by Barclay et al. (2007) detected a positive relationship between bat fatality rate and WTG hub height (range: 24–94 meters [79–308 feet]), but no effect of rotor diameter (range: 15–80 meters [49–262 feet]) or rotor swept area (range: 167–5,027 square meters [1,798–54,110 square feet]). Zimmerling and Francis (2016) investigated the effect of total WTG height (range: 117–136 meters [384–446 feet]) on bat fatality rate and detected no relationship. The equivocal nature of these findings leads to uncertainty in how the reduction in number of WTGs but increase in hub heights, rotor diameters, and total rotor swept area may affect bat fatality rates at the proposed project site.

The results of fatality monitoring at the Mountain View IV and Dillon wind energy facilities found the highest collision risk for Brazilian free-tailed bat (*Tadarida brasiliensis*), western yellow bat, and hoary bat (*Lasiurus cinereus*). These three species have not been identified on the project site but could occur. Because of lack of population size information for these bat species, there is uncertainty in the likelihood of population-level impacts that could be caused by the project (e.g., Frick et al. 2017). In addition, Brazilian free-tailed bat, hoary bat, big brown bat (*Eptesicus fuscus*), western yellow bat (a species of concern), and pocketed free-tailed bat (*Nyctinomops femorosaccus*; a species of concern) have been documented as fatalities at wind energy facilities within the San Gorgonio Wind Resource Area near the project site (NREL 2005; WEST 2009). However, based on the relatively low levels of bat mortality observed at nearby projects and for the Pacific Southwest Region in general (0–5.2 bats per MW per year), significant project-related impacts to bat populations are not anticipated. Refer to discussion on bird collision impacts under Impacts to Protected Birds. With incorporation of the APMs, including the pBBCS prepared pursuant to APM BIO-14, and implementation of MM BIO-2, the potential impacts on special-status bat species would be less than significant.

- **Nelson’s Bighorn Sheep.** Nelson’s bighorn sheep are observed regularly on the project site and in the surrounding area. The populations in the project vicinity have no ESA or CESA listing status (populations south of Interstate 10 are federally listed as threatened). Nelson’s bighorn sheep is a BLM sensitive species and is fully protected under the California Fish and Game Code.
- **Other Mammals.** Several mammal species range widely through desert habitats. These include American badger (*Taxidea taxus*) and desert kit fox (*Vulpes macrotis arsipus*). Desert kit fox is not listed as a special-status species by CDFW or USFWS, but it is protected under the California Code of Regulations (14 CCR, Section 460). The American badger is listed as a species of special concern in California. Several American badger burrows were observed on the project site. Desert kit fox, although not observed, has a moderate to high probability of occurring on the site.

The project would substantially degrade natural habitat (unvegetated/ruderal, brittlebush scrub, California juniper woodland, California sagebrush–buckwheat scrub, Creosote bush–brittle bush scrub) for these wildlife species. As part of the decommissioning of the existing legacy WTGs, the proposed project would also restore approximately 20 acres of currently disturbed habitat. None of the project components would introduce new barriers to wildlife movement except on a very localized scale. Without implementation of the APMs and MM BIO-1 (Habitat Compensation), the project would result in habitat loss and degradation and could cause injury or death of other special-status wildlife, as described previously for desert tortoise. Furthermore, without implementation of APM BIO-13 (Post-Construction Monitoring for Birds and Bats) and APM BIO-14 (Bird and Bat Conservation Strategy) and MM BIO-2 (Bird and Bat Conservation Strategy Standards), the project could result in adverse effects from bat collision. With implementation of the APMs, MM BIO-1, and MM BIO-2, the proposed project impact on other special-status wildlife species would be less than significant.

Summary of Impacts to Special-Status Species

With incorporation of the specified APMs and implementation of MM BIO-1 (Habitat Compensation) and MM BIO-2 (Bird and Bat Conservation Strategy Standards), impacts to special-status wildlife species would be less than significant.

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. There are no wetland or riparian habitat types on the project site; however, the site does support ephemeral desert washes and channels (refer to the Jurisdictional Delineation in Appendix C-2). The proposed access road improvements would impact riparian habitat designated as a sensitive natural community, which would be avoided and minimized through implementation of APM BIO-2 through APM BIO-4, APM BIO-8, and APM BIO-12. This impact would be less than significant with implementation of the APMs and MM BIO-3 (Restoration and Revegetation Standards) and MM BIO-4 (CVMSHCP Consistency).

The following common vegetation types provide suitable habitat for many common wildlife species as well as special-status wildlife:

- Brittlebush scrub is the most abundant vegetation on the project site, found primarily on exposed west- and south-facing slopes. Brittlebush is a common to dominant species in desert shrublands and in coastal scrub of the interior valleys west of the site.

- California sagebrush–California buckwheat scrub is most common on disturbed soils such as along road cuts and adjacent to graded areas. The predominant shrubs are more common in shrublands to the west, and the project site is near the eastern margin of their geographic distributions.
- California juniper woodland is found primarily on north-facing slopes and in the lower portions of several of the drainages on the project site.
- Creosote bush–brittlebush scrub is found primarily in the eastern portion of the project site on areas with relatively flat topography. It is a widespread in the Southern California deserts.
- Unvegetated areas or ruderal vegetation cover the roads, cleared areas, and building or O&M pads for the existing WTGs.

Desert willow woodland is not found on the project site but is present along the access road on private land where the project applicant has an easement and the road crosses Cottonwood Creek. Potential impacts could affect up to 0.5 acres of this vegetation type, limited to minor road improvements at the crossing site. Desert willow woodland would be considered riparian habitat and is identified by CDFW as a sensitive natural community.

The ephemeral desert washes and channels on the project site do not support wetlands, riparian habitat, or other sensitive natural communities. However, ephemeral channels may provide habitat elements for wildlife, such as increased plant diversity, cover, or food availability, and they serve to convey water and sediment downstream, supporting off-site habitat values. These ephemeral channels are regulated by CDFW and the Colorado River Basin RWQCB, but likely do not meet jurisdictional criteria for federal regulation under the Clean Water Act. Federal jurisdiction does not extend to ephemeral channels (such as those found on the site and access road) (85 FR 22250–22342). The applicant has requested a formal jurisdictional determination from USACE to confirm this understanding. If USACE instead determines that it holds federal jurisdiction, then project impacts within the ephemeral washes would be subject to federal permitting under Section 404 of the Clean Water Act.

The project is expected to permanently impact 2.68 acres of CDFW-jurisdictional waters of the state. All of the potentially jurisdictional waters of the state mapped within the proposed disturbance area are characterized as ephemeral desert washes or ephemeral channels. These washes and channels exhibited field indicators of infrequent ephemeral active flow such as water marks, linear deposits of sediment and/or plant debris, bank scour, and erosion. Any substantial alteration (e.g., construction activities, culvert installation, or deposition of fill material) to these jurisdictional features would require regulatory authorization from CDFW.

The ephemeral channels also meet jurisdictional criteria as waters of the state according to the Porter-Cologne Water Quality Control Act. Therefore, impacts to the channels would also require authorization from the Colorado River Basin RWQCB.

One of the ephemeral wash sites supports a sensitive vegetation type, desert willow woodland, and is addressed further below. The other sites do not support riparian habitat or sensitive communities. The impacts on waters of the state would be avoided and minimized through the implementation of APM BIO-2 (Biological Monitoring), APM BIO-3 (Worker Environmental Awareness Program Training), APM BIO-4 (Minimization of Vegetation and Habitat Impacts), APM BIO-5 (Wildlife Protection), APM BIO-8 (Integrated Weed Management Plan), APM BIO-9 (Monitoring and Reporting Schedule), and APM BIO-12 (Revegetation). In addition, the habitat compensation provided under MM BIO-1 for desert tortoise may support ephemeral washes and associated resources as well. It is the applicant's responsibility to find lands that would meet the compensatory mitigation requirements for impacts to waters of the state.

Lands required for MM BIO-1 for desert tortoise may also be appropriate for MM BIO-3 if the lands support both desert tortoise ephemeral washes and associated resources. The suitability of these lands as compensatory mitigation is subject to the review and approval of CDFW. Furthermore, the applicant would implement all permit conditions associated with the CDFW and RWQCB authorizations.

The desert willow woodland vegetation is in a dry wash crossing for the main access road, located within a road easement on Riverside County Flood Control land. Access for project construction would necessitate a temporary expansion of the easement resulting in up to 0.5 acres of impact to this vegetation type. Implementation of APM BIO-2 through APM BIO-4 and APM BIO-8 will minimize the effects of the project on riparian habitat and sensitive vegetation. Implementation of APM BIO-12 (Revegetation) will result in revegetation of habitat in temporarily disturbed areas following construction. APM BIO-12 specifies that the applicant shall prepare and implement a revegetation plan for all temporarily disturbed areas (e.g., disturbed areas outside the permanent roadway footprint) including restoration of vegetation and habitat characteristics to provide habitat for species comparable to what is present before the disturbance occurs.

In order to mitigate for the temporary impact to desert willow woodland, as well as any desert willow woodland impacted within the permanent roadway footprint from the proposed access road construction, the applicant shall implement APM BIO-12 (Revegetation) and MM BIO-3, which specifies monitoring and success criteria for desert willow woodland restoration and revegetation.

MM BIO-3 Restoration and Revegetation Standards. The project applicant shall prepare a revegetation plan as specified in APM BIO-12. The revegetation plan shall be approved by the Bureau of Land Management (BLM), U.S. Fish and Wildlife Service (USFWS), and California Department of Fish and Wildlife (CDFW) prior to issuance of notice to proceed.

The revegetation plan shall include the following minimum restoration and revegetation standards for the desert willow woodland vegetation in the dry wash crossing associated with the project access road:

- Permanent impacts to desert willow woodland within the road footprint shall be compensated by establishing desert willow woodland vegetation in the dry wash outside the road footprint at a minimum mitigation ratio of 3:1, consistent with the restoration and revegetation standards in this measure. Alternative compensatory mitigation may be used to fulfill this condition if CDFW determines it to be equivalent or superior during the permitting process for jurisdictional resources.
- Temporary impacts to CDFW jurisdictional resources shall be compensated at a minimum mitigation ratio of 2:1, consistent with the restoration and revegetation standards in this measure. Alternative compensatory mitigation may be used to fulfill this condition if CDFW determines it to be equivalent or superior during the permitting process for jurisdictional resources.
- All disturbed areas outside the road footprint within the dry wash shall be revegetated with native desert willow woodland species characteristic of the dry wash, including desert-willow (*Chilopsis linearis*) and associated species including but not limited to scale broom (*Lepidospartum squamatum*), cheesebush (*Ambrosia salsola*), brittle bush (*Encelia farinosa*), and black-stem rabbitbrush (*Ericameria paniculata*).
- Seed and/or container plants used in the restoration and revegetation shall be sourced from genetic stock appropriate to the project vicinity. If commercial seed mixes are purchased, they shall be native and free of noxious weeds. If seed from genetic stock

appropriate to the project vicinity is not available, seeds can be collected within the project vicinity with the appropriate permits and tags for native plant collection.

- Restoration and revegetation shall be implemented during the appropriate season within 1 year of notice to proceed OR project impacts if impacts occur more than 1 year after the notice to proceed. Restoration and revegetation shall be implemented by a qualified contractor with experience implementing habitat restoration projects in the region, as approved by BLM, USFWS, and CDFW.
- A maintenance, monitoring, and reporting program shall be implemented for the desert wash woodland restoration and revegetation area for a minimum of 3 years and the following minimum performance standards shall be met by the end of year 3:
 - At least 80% of the species observed within the desert wash woodland restoration and revegetation area shall be native species that naturally occur in adjacent wash habitats.
 - Relative cover of plant species within the desert wash woodland restoration and revegetation area shall be equal to or greater than 60% of native background cover in adjacent wash habitats.
 - Additional standards for meeting success criteria may be specified in CDFW permit conditions beyond the mitigation measure provided here.

If these standards are not met by the end of year 3, remedial measures shall be identified and implemented, with approval from BLM, USFWS, and CDFW, including additional maintenance, monitoring, and reporting.

The impacts associated with the proposed access road dry wash crossing are on private lands covered under the CVMSHCP and will also be addressed through the CVMSHCP development mitigation fees. These fees are used to acquire and manage natural habitats throughout the CVMSHCP area (also refer to Section 3.4.2[e]). In addition, implementation of MM BIO-4 (CVMSHCP Consistency) will require application of the CVMSHCP Land Use Adjacency Guidelines, which will ensure that the project is implemented in a manner that avoids and minimizes indirect effects associated with noise, lighting, drainage, human presence, and invasive species. The project completed a JPR process to determine consistency with the CVMSHCP. With implementation of the APMs and MM BIO-3 (Restoration and Revegetation Standards) and MM BIO-4 (CVMSHCP Consistency), the impact to desert willow woodland associated with the dry wash crossing would be less than significant.

MM BIO-4 CVMSHCP Consistency. The project applicant shall implement all conditions required for CVMSHCP consistency, including payment of any required development mitigation fees and consistency with the required Avoidance, Minimization, and Mitigation Measures (CVMSHCP Section 4.4) and Land Use Adjacency Guidelines (CVMSHCP Section 4.5), as determined through joint project review process (CVMSHCP Section 6.6.1.1) for the proposed access road component of the project on private lands within the CVMSHCP.

Impacts to jurisdictional waters where the desert willow woodland occurs are also subject to CDFW and RWQCB authorization as described previously. Both agencies may specify permit conditions beyond the APMs and mitigation measures identified here.

With incorporation of the specified APMs and implementation of MM BIO-1, MM BIO-3, and MM BIO-4, as well as compliance with all regulatory permit conditions, the impacts to jurisdictional ephemeral washes and other sensitive natural communities would be less than significant.

c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

NO IMPACT. No wetlands are present on the project site or in the vicinity. The project would impact several ephemeral dry channels that meet CDFW jurisdictional criteria under the California Fish and Game Code (refer to Section 3.4.2[b]); however, the project would have no impact on wetlands.

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. The project would not erect permanent or long-term barriers to wildlife movement, although there would be some short-term interruption of potential movement during project construction. These short-term impacts would not prevent wildlife access to important resources or habitat areas. In addition, the project site is currently developed with WTGs and has been operating in this capacity for over 30 years. Following construction, wide-ranging species such as Nelson's bighorn sheep would still have access throughout the project site (as they now do). There is no proposed new permanent fencing that would affect potential movement of wide-ranging species through the area. It is unknown whether wildlife would have a greater tendency to avoid the new larger WTGs as compared to the existing many small ones and, if so, whether that would substantially affect their movements through the site. Nonetheless, there is extensive undeveloped natural open space to the north, east, and west of the project site, allowing wide-ranging wildlife access to important montane habitat areas and to the Whitewater River to the east. Any effects on potential wildlife movement during operation would be similar to existing conditions and would be less than significant.

There is a potential for migratory or nesting birds to be present on the project site, and their migration or nest sites could be impacted by project activities and facilities. Without the avoidance and minimization provided by APM BIO-13 (Post-Construction Monitoring for Birds and Bats), APM BIO-14 (Bird and Bat Conservation Strategy), and APM BIO-15 (Golden Eagle), the proposed project could result in bird collisions affecting migration. These APMs specify that, among other measures, the applicant would implement a 2-year baseline fatality study, operational fatality monitoring as a part of its WEAP, and fatality data management and reporting. With implementation of these APMs, the migration impacts of the proposed project during construction and operation would be avoided and minimized. In addition, the applicant would implement APM BIO-14 according to MM BIO-2 (Bird and Bat Conservation Strategy Standards), which would avoid, minimize, and offset the effect of the project on bird and bat species. Also refer to the discussions of impacts to protected birds in Section 3.4.2(a). With incorporation of APM BIO-13 through APM BIO-15 and implementation of MM BIO-2, the effect of the project on migratory or nesting birds and any potential effects to their movement or wildlife nursery sites would be less than significant.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

LESS THAN SIGNIFICANT IMPACT. The project would not conflict with any applicable local policies or ordinances protecting biological resources, such as tree preservation policies or ordinances. The project site is located within the CVMSHCP boundaries, which is discussed further in Section 3.4.2(f). The project would also be consistent with the goals and policies of the County General Plan (County of Riverside 2015) and the project's Wind Energy Conversion System permit conditions. Impacts from the project relative to local policies and ordinances would be less than significant.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. The project is within the CVMSHCP boundaries (CVAG 2007), and for projects located on private lands within these boundaries, the CVMSHCP provides state and federal Endangered Species Act coverage for several listed species as well as mitigation coverage for multiple other special-status plants and wildlife. The majority of the project area is on BLM land, and because BLM is not a permittee, the BLM-administered lands would not be eligible for listed species take coverage under the CVMSHCP. However, the western portion of the access road (Figure 2-3) is located on private land and completed a JPR process through the County and the CVCC, followed by review and concurrence by CDFW and USFWS. The CVMSHCP identifies several conservation areas within its coverage area. The western portion of the project site is within the Stubbe and Cottonwood Canyons Conservation Area, and the eastern area of the site is within the Whitewater Canyon Conservation Area of the CVMSHCP.

The CVMSHCP includes mapped modeled habitat for certain covered species. Modeled habitat for the following three species is located within the project area:

- Coachella Valley milk-vetch: 4.03 acres (of 41,098 acres of modeled habitat in the CVMSHCP area)
- Coachella Valley Jerusalem cricket (*Stenopelmatus cahuilensis*): 4.03 acres (of 27,446 acres of modeled habitat in the CVMSHCP area)
- Desert tortoise: 401.25 acres (i.e., the entire project site; of 587,926 acres of modeled habitat in the CVMSHCP area)

The entire Mesa Wind energy facility access road would also be within the CVMSHCP area on modeled desert tortoise habitat. However, a small portion of the access road would cross two private land parcels (Assessor's Parcel Numbers 517-030-009 and 517-030-003) covered under the CVMSHCP and subject to applicable fees (Figure 3.4-1, Coachella Valley Multiple Species Conservation Plan Compliance). The parcels include 1.04 acres of disturbance for the existing access road. New disturbance on these parcels associated with the project would total 0.43 acres. Approximately 0.53 acres of existing disturbance along the access road would be restored post construction for a net loss of 0.1 acres of disturbance on the private parcels.

The access road disturbance within the modeled habitat in the CVMSHCP covered area would include the following:

- Desert tortoise modeled habitat: 0.91 acres (0.48 acres include existing disturbance)
- LeConte's thrasher (*Toxostoma lecontei*) modeled habitat: 0.87 acres (0.47 acres include existing disturbance)
- Sand source: 0.034 acres (0.004 acres include existing disturbance)
- Sand transport: 0.87 acres (0.47 acres include existing disturbance)
- Habitat linkage: 0.91 acres (0.48 acres include existing disturbance)
- Desert dry wash woodland: 0.43 acres (0.27 acres include existing disturbance)

Wind energy repower projects are an allowable use in the CVMSHCP conservation areas provided the project is consistent with CVMSCHP (CVAG 2016). Table 3.4-3 (CVMSHCP Conformance) identifies the proposed project disturbance areas in each conservation area for each resource, as compared with the disturbance area authorized by the CVMSHCP. Project activities would not exceed CVMSHCP disturbance thresholds for any habitat or resource specified for either of the two conservation areas.

Table 3.4-3. CVMSHCP Conformance

Resource	Stubbe and Cottonwood Canyons Conservation Area Disturbance (Acres)			Whitewater Canyon Conservation Area Disturbance (Acres)		
	CVMSHCP Authorized Disturbance ^a	Disturbance to Date ^b / Remaining Balance	Proposed Project Estimated Disturbance	CVMSHCP Authorized Disturbance	Disturbance to Date ^b / Remaining Balance	Proposed Project Estimated Disturbance
Total authorized disturbance	270	29/241	62 new 18 existing 80 total	160	1/159	16 new 6 existing 21 total
Core habitat for arroyo toad	N/A	N/A	N/A	78	0/78	N/A
Core habitat for desert tortoise	253	29/224	62 new 18 existing 80 total	120	1/119	16 new 6 existing 21 total
Other conserved habitat for LeConte's thrasher	123	0/123	1.5 new 0.5 existing 2 total	N/A	N/A	N/A
Other conserved habitat for little San Bernardino Mountains linanthus	N/A	N/A	N/A	39	0/39	N/A
Other conserved habitat for triple-ribbed milk-vetch	N/A	N/A	N/A	41	0/41	N/A
Sonoran cottonwood-willow riparian forest	(3) ^c	0/(3)	N/A	(11) ^c	0/(11)	N/A
Desert dry wash woodland	26	0/26	0.5 new 0 existing 0.5 total	N/A	N/A	N/A
Desert fan palm oasis woodland	N/A	N/A	N/A	0	0	N/A
Sand source areas	138	0/138	62 new 18 existing 80 total	94	1/93	16 new 6 existing 21 total
Fluvial sand transport areas	125	0/125	1.5 new 0.5 existing 2 total	48	0/48	N/A

Table 3.4-3. CVMSHCP Conformance

Resource	Stubbe and Cottonwood Canyons Conservation Area Disturbance (Acres)			Whitewater Canyon Conservation Area Disturbance (Acres)		
	CVMSHCP Authorized Disturbance ^a	Disturbance to Date ^b / Remaining Balance	Proposed Project Estimated Disturbance	CVMSHCP Authorized Disturbance	Disturbance to Date ^b / Remaining Balance	Proposed Project Estimated Disturbance
Habitat corridors	117	0/117	1.5 new 0.5 existing 2 total	22	1/21	N/A

Notes: CVMSHCP = Coachella Valley Multiple Species Habitat Conservation Plan; N/A = not applicable.

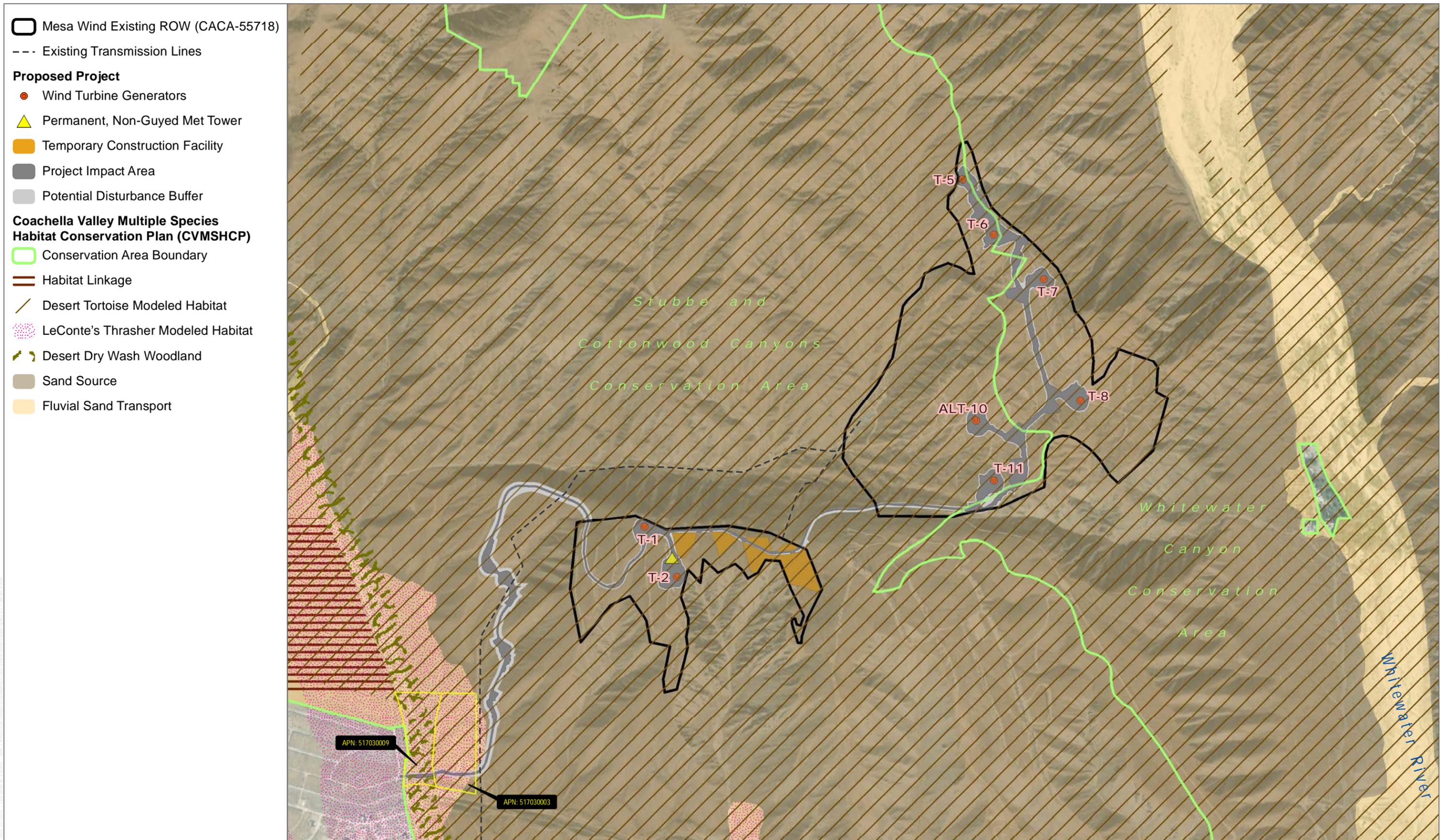
^a CVAG 2007, Tables 4-17 and 4-27b.

^b Data from CVCC 2019, Appendix 3.

^c Disturbance of no more than 3 or 11 acres may occur as shown for each conservation area, but it would be replaced to ensure that no net loss occurs, and the conservation objective is achieved.

As required in MM BIO-1, the applicant will offset 74 acres of temporary and permanent habitat impacts from the proposed project according to terms of a compensation strategy to be developed in coordination between USFWS, CDFW, and BLM. The compensation lands would be located in desert tortoise habitat with equivalent function and value. The replacement habitat is intended to benefit the population of tortoises adversely affected by the project and would be located in the Colorado Desert Recovery Unit. The applicant would coordinate with CDFW, BLM, and USFWS to reach mutual agreement on the selection and ownership/management of acquired lands. Temporarily disturbed areas will be revegetated pursuant to APM BIO-12 (Revegetation) and MM BIO-3 (Revegetation Standards), and the project applicant will implement conditions to be consistent with the CVMSHCP, as specified in MM BIO-4 (CVMSHCP Consistency) including payment of any required development mitigation fees and consistency with the CVMSHCP Section 4.5 Land Use Adjacency Guidelines.

Based on the above evaluation, the proposed project would be considered consistent with the CVMSHCP requirements and will adhere to all conditions deemed required in the consistency findings prepared by the CVCC, CDFW, and USFWS through the JPR process. The JPR process was completed on January 5, 2021. The JPR found no inconsistencies between the proposed project and the CVMSHCP. Disturbances to Core Habitat for desert tortoise and Other Conserved Habitat for LeConte's thrasher are both within authorized limits, as are impacts to sand sources and sand transport corridors. Rough step remains within appropriate parameters. CVCC, CDFW, and USFWS (the latter two collectively referred to as "the Agencies") agreed that adherence to CVMSHCP Avoidance, Minimization, and Mitigation Measures and Land Use Adjacency Guidelines, as required by Sections 4.4 and 4.5 respectively, should be incorporated explicitly into the project scope of work (as discussed in the agencies' comment letter found in the CVCC JPR, Appendix A). Through consistency with the CVMSHCP and with incorporation of the specified APM and implementation of MM BIO-1, MM BIO-3, and MM BIO-4, the proposed project would not result in adverse effects to the biological resources covered by the CVMSHCP. Therefore, impacts would be less than significant.



SOURCE: ESRI, Aspen 2020



FIGURE 3.4-1

Coachella Valley Multiple Species Habitat Conservation Plan Compliance

Mesa Wind Repower Project

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3.5 Cultural Resources

CULTURAL RESOURCES

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

3.5.1 Setting

The following analysis is based on the Cultural Resources Class I and Class III Reports (Earle and Macko 2019; Macko et al. 2020) presenting the results of surveys conducted for the Bureau of Land Management (BLM).

In Southern California, the prehistoric period began more than 12,000 years ago and ended in the late 1700s when Europeans first settled in California.

Types of cultural resources common in the project area include resources associated with mining (prospecting pits, mines, tailings [residues from ore separation], adits [horizontal mine entrances], and cairn claim markers), agriculture and ranching (historic camps, residential structures, wells, windmills, fences, privies, ramps, refuse scatters, and irrigation canals), and transportation (stage stops, roads, railroad lines, and trails). The region is particularly sensitive for prehistoric resources, including villages, camps, rock art, ceremonial sites, lithic scatters, ceramic scatters, habitation debris, quarries, roasting features, and bedrock milling features.

The San Gorgonio Pass region, from Banning to Whitewater, was occupied in the late eighteenth century by a division of the Cahuilla ethnic-linguistic group referred to as the Pass Cahuilla or Wanakik Cahuilla.

The settlement place of Wanakik, Waniipiipayam, or Gonopeapa has been stated by native elders as being associated with Whitewater or Whitewater Canyon. This includes information collected by John P. Harrington from Serrano Tribal Elder Santos Manuel, who placed the Wanakik at Whitewater Canyon. This places the project site within Wanakik territory.

Field surveys within the project's area of potential effect (APE) were conducted during September 10–13, 2019, and on April 2, 2020. The surveys were led by Michael E. Macko of Aspen Environmental Group (Aspen), assisted by Aspen archaeological field technician Elliot D'Antin. The Class I surveys identified only one prehistoric resource in the project area, which had been previously surveyed in its entirety (Mattiussi 2007); indicating a low likelihood of encountering these types of resources. The Class I survey report also identified that historic mining and ranching has occurred within the project area.

Four surveys in the project area have identified 11 cultural resources within the APE; refer to Table 3.5-1. Two of these surveys were BLM Class III inventories that covered the entire project site (Macko et al. 2020; Mattiussi 2007). The resources identified fit with expectations of the types of cultural resources common in the project area, including resources associated with mining, agriculture and ranching, and transportation.

Table 3.5-1. Cultural Resources Identified within the APE

Primary No.	Trinomial	Age	Attributes	Recording Events
33-000075	CA-RIV-75	Prehistoric	A trail section roughly 300 meters in length with scattered sherds along its course.	1955 (Johnston and Johnston)
33-002169	CA-RIV-2169	Historic	A rock cairn with an associated “Everlasting Jar.” The jar was first patented in 1905. Cairn was likely a mining claim.	1981 (Ritter, Bureau of Land Management)
33-015990		Prehistoric	An isolated single-stemmed, serrated rhyolite projectile point. Originally identified as East Gate. Point is not stemmed, but corner notched and is therefore a Rose Gate Series point. Represents one of the earliest forms of arrow point technology in Southern California.	2007 (Toenjes and Mattiussi, Stantec Consulting)
33-015991		Historic	An isolated historic feature consisting of a small rock cairn and wooden post with holes that has collapsed.	2007 (Toenjes and Mattiussi, Stantec Consulting)
33-029004		Historic	A historic corral measuring 120 feet by 70 feet.	2020 (Macko et al., Aspen)
33-029005		Historic	An open-pit sericite mine with an associated rock cairn.	2020 (Macko et al., Aspen)
33-029006		Historic	An open-pit sericite mine.	2020 (Macko et al., Aspen)
33-029007		Historic	A mining adit for sericite.	2020 (Macko et al., Aspen)
33-029008		Historic	A historic facility of unknown function.	2020 (Macko et al., Aspen)
33-029009		Historic	An isolated rock cairn without trail or mining associations.	2020 (Macko et al., Aspen)
33-029010		Prehistoric	An isolated milling feature.	2020 (Macko et al., Aspen)

Four cultural resources were previously recorded within the APE. None of the previously recorded resources were recommended as eligible for inclusion on the National Register of Historic Places (NRHP) and none could be relocated during the BLM Class III archaeological survey conducted in 2020. During the 2020 survey, Aspen recorded and evaluated 7 new cultural resources within the direct APE, including 6 new archaeological sites and 1 new isolate. None of the newly identified cultural resources were recommended eligible for the NRHP.

Regulatory Background

Federal

National Historic Preservation Act

The project APE encompasses federally administered lands, thus requiring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA; 54 USC 306108), and its implementing regulations (36 CFR 800).

The NHPA established the NRHP and the President’s Advisory Council on Historic Preservation, and provided that states may establish State Historic Preservation Officers to consult with federal agencies on undertakings that may affect historic properties. Most significantly for federal agencies responsible for managing cultural resources, Section 106 of the NHPA directs that “[t]he head of any Federal agency

having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the NRHP.” Section 106 also requires that the head of the federal agency afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking (54 USC 306108).

Title 36 of the Code of Federal Regulations, Part 800 (36 CFR 800), implements Section 106 of the NHPA. It defines the steps necessary to identify historic properties (those cultural resources listed in or eligible for listing in the NRHP), including consultation with federally recognized Indian Tribes to identify resources of concern to them and to determine whether or not they may be adversely affected by a proposed undertaking, as well as defining the process for avoiding, minimizing, or mitigating adverse effects. The content of 36 CFR 60.4 also defines criteria for determining eligibility for listing in the NRHP. BLM evaluates the significance of cultural resources identified during inventory phases in consultation with the California State Historic Preservation Office to determine whether the resources are eligible for inclusion in the NRHP. Cultural resources may be considered eligible for listing if they possess integrity of location, design, setting, materials, workmanship, feeling, or association. According to 36 CFR 60.4, resources may be considered historically significant and eligible for NRHP listing under the following criteria:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

- a. that are associated with events that have made a significant contribution to the broad patterns of local or regional history; or
- b. that are associated with the lives of persons significant to our past; or
- c. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d. that have yielded, or may be likely to yield, information important in prehistory or history.

Archaeological Resources Protection Act

The Archaeological Resources Protection Act of 1979 (16 USC 470aa et seq.) and its implementing regulations found at 43 CFR Part 7 protect archaeological resources from vandalism and unauthorized collecting on public and Indian lands.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act specifies requirements for responding to discoveries of Native American human remains and associated funerary objects on federal land. These requirements are addressed under Public Law 101 601 and its implementing regulations found at 43 CFR Part 10.

The Antiquities Act

The Antiquities Act of 1906 (16 USC 431–433) establishes criminal penalties for unauthorized destruction or appropriation of “any historic or prehistoric ruin or monument, or any object of antiquity” on federal land, and empowers the president to establish historical monuments and landmarks.

Federal Land Policy and Management Act

The Federal Land Policy and Management Act of 1976 (Public Law 94-579) is BLM’s “organic act,” which establishes the agency’s multiple-use mandate. It establishes policy and goals to be followed in the administration of public lands under BLM jurisdiction. The intent of the Federal Land Policy and Management Act is to protect and administer public lands within the framework of a program of multiple-use and sustained yield and the maintenance of environmental quality. Particular emphasis is placed on the protection of the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resources, and archaeological values.

State

California Environmental Quality Act

The California Environmental Quality Act of 1970 (CEQA); California Public Resources Code, Section 21000 et seq.) established that historical and archaeological resources are afforded consideration and protection. The CEQA Guidelines (14 CCR 15000 et seq.) define significant cultural resources under three regulatory designations: historical resources, unique archaeological resources, and tribal cultural resources.

A historical resource is a “resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the [California Register of Historical Resources] CRHR”; or “a resource listed in a local register of historical resources or identified as significant in a historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code”; or “any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the agency’s determination is supported by substantial evidence in light of the whole record” (14 CCR Section 15064.5[a][3]).

Historical resources automatically listed in the CRHR include California cultural resources listed in or formally determined eligible for the NRHP and California Historical Landmarks list from No. 770 onward (California Public Resources Code, Section 5024.1[d]). Locally listed resources are entitled to a presumption of significance unless a preponderance of evidence in the record indicates otherwise.

Under CEQA, a resource is generally considered historically significant if it meets the criteria for listing in the CRHR. A resource must meet at least one of the following criteria (California Public Resources Code, Section 5024.1, and 14 CCR 15064.5[a][3]):

1. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
2. Is associated with the lives of persons important in our past.
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
4. Has yielded, or may be likely to yield, information important in prehistory or history.

Another section of the California Public Resources Code, Section 4852(b), adds further clarification to these criteria as shown below:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
2. It is associated with the lives of persons important to local, California, or national history;
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Historical resources must also possess integrity of location, design, setting, materials, workmanship, feeling, and association (California Public Resources Code, Section 4852[c]).

An archaeological artifact, object, or site can meet CEQA's definition of a unique archaeological resource even if it does not qualify as a historical resource (California Public Resources Code, Section 21083.2[g]; 14 CCR 15064.5[c][3]). An archaeological artifact, object, or site is considered a unique archaeological resource if "it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria (California Public Resources Code, Section 21083.2[g]):

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Native American Historic Resources Protection Act

The Native American Historic Resources Protection Act (California Public Resources Code, Section 5097 et seq., Section 5097.9, and Section 5097.98) establishes that both public agencies and private entities using or occupying public property, or operating on public property, under a public license, permit, grant, lease, or contract on state property under public permit, shall not interfere with the free expression or exercise of Native American religion, and shall not cause severe or irreparable damage to Native American sacred sites. In addition, this section states that "no person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands." This section also creates the Native American Heritage Commission, charged with identifying and cataloging places of special religious or social significance to Native Americans, identifying and cataloging known graves and cemeteries on private lands, and performing other duties regarding the preservation and accessibility of sacred sites and burials.

The Native American Historic Resources Protection Act also discusses the procedures that need to be followed upon the discovery of Native American human remains. Upon notification of the discovery of human remains, the Native American Heritage Commission is required to notify those persons it believes

to be the most likely descendant from the deceased Native American pursuant to Section 7050.5(c) of the Health and Safety Code (California Public Resources Code, Section 5097.98).

Local

No local regulations or guidance are applicable to cultural resources that may exist within the proposed project's APE.

Applicant Proposed Measures

The following Applicant Proposed Measures (APMs) would reduce impacts related to cultural resources, and where applicable, are referenced in the impact analysis section below:

- APM CUL-1 Archaeological Worker Environmental Awareness Program.** The project applicant shall develop a worker environmental awareness program (WEAP) for all construction supervisors and crew to ensure their awareness of requirements regarding the protection of historic properties and procedures to be implemented in the event that archaeological sites are encountered during ground-disturbing activities. This training must be approved by BLM and presented by a qualified cultural resources specialist. All construction supervisors and crewmembers will be required to undergo archaeological WEAP training prior to commencement of ground-disturbing activities or prior to beginning work on the project site. WEAP training will also be required for decommissioning personnel.
- APM CUL-2 Archaeological Monitoring.** The applicant shall develop procedures for archaeological monitoring, post-review discovery, and unanticipated effects and submit them to BLM for review and approval prior to initiation of construction activities. Qualified archaeologist(s) will be on site part time during new ground-disturbing construction activities. Qualified archaeologist resumes must be submitted to BLM for review and approval 30 days prior to the individual working on the site.
- APM CUL-3 Procedures upon Encountering Archaeological Resources.** All construction crews will be alerted to the potential for encountering archaeological resources. In the event that archaeological resources (sites, features, and artifacts) are exposed during construction activities involving ground disturbance for the project, all construction work occurring within 100 feet of the find shall immediately stop, BLM must be immediately notified, and the discovery must be inspected by a qualified archaeologist who meets the Secretary of the Interior's Professional Qualification Standards. The 100-foot avoidance buffer may be adjusted following inspection of the area by the qualified archaeologist. Depending on the significance of the find, BLM will make a determination on how the discovery will be treated.
- APM CUL-4 Treatment of Human Remains.** In accordance with the Native American Graves Protection and Repatriation Act, if human remains are found during ground-disturbing activities, BLM must be notified immediately. Excavation or disturbance in the area of the discovery must cease and a reasonable effort must be made to protect the human remains and other cultural items. BLM must certify receipt of the notification within three working days and take immediate steps, if necessary to comply with the Native American Graves Protection and Repatriation Act, to further secure and protect the human remains and other cultural items.

3.5.2 Impact Analysis

a. *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to section 15064.5?*

LESS THAN SIGNIFICANT IMPACT. No known resources eligible for the CRHR or NRHP are present within the project APE. Six archaeological sites and one isolated feature were identified within the APE during the Class III survey. The following resources were identified:

- Site 33-029004 is a historic wooden corral with galvanized steel supports measuring 120 feet by 70 feet. The area around the site was used for ranching since the late 1800s and may have included grazing by the Whitewater Ranch, which was developed between 1858 and 1860. It is unclear exactly what year this historic corral may have been in operation, especially with a lack of associated artifacts.
- Site 33-029005 includes a large, deep prospecting area with tailings and a small rock cairn on the terrace directly above it. The prospected area is 30 feet in diameter within the hillside.
- Site 33-029006 is another prospect site, slightly larger than and a short distance (400 meters [approximately 1,300 feet]) south of Site 33-029005.
- Site 33-029007 is a rectangular vertical adit 150 meters (approximately 500 feet) farther southeast that measures roughly 5.5 feet (north–south) by 6.5 feet (east–west). The adit descends 15 feet deep into the gneissic rocks.
- Site 33-029008 is an unidentified feature with no known or suspected function consisting of a deteriorating wooden plank through which four 2- by 2-inch square metal posts have been heavily pounded into the earth.
- Site 33-029009 is a small dispersed rock cairn of six granitic cobbles in a 70-centimeter-diameter (28-inch-diameter) area placed near an outcrop of granitic gneiss.
- Isolated feature 33-02010 is a milling feature consisting of a quartz diorite granite boulder with three milling surfaces on its upper surface.

Each of these resources has been evaluated as a potential historic property under eligibility criteria for listing on the NRHP (and therefore under the CRHR criteria) and determined ineligible for inclusion. However, it is possible that previously unknown buried resources could be discovered and inadvertently damaged or destroyed during ground-disturbing work, which would constitute a significant impact absent mitigation. In an effort to minimize potential impacts to unknown buried resources during ground-disturbing construction activities, the project applicant would implement APM CUL-1 through APM CUL-4 (refer to Section 3.5.1, under Applicant Proposed Measures, for complete APMs). With incorporation of APMs as part of project implementation, potential inadvertent impacts to unanticipated historical resources would be less than significant.

b. *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to section 15064.5?*

LESS THAN SIGNIFICANT IMPACT. As discussed under Threshold (a), six archaeological sites and one isolated feature were identified within the APE during the Class III survey. Upon evaluation, these newly identified resources were recommended not eligible for inclusion in the NRHP. In addition, the project site geography is erosional in nature and it is unlikely that cultural resources sites would be buried by sediments within the project site. As such, it is unlikely that unknown unique archaeological resources are present within the project APE. However, it is possible that previously unknown unique archaeological

resources could be discovered and inadvertently damaged or destroyed during ground-disturbing work associated with construction of the wind turbine generators or associated infrastructure. This would constitute a significant impact absent mitigation. To minimize potential impacts to unknown buried resources during ground-disturbing construction activities, the project applicant would implement APM CUL-1 through APM CUL-4. Therefore, with incorporation of APMs as part of the project implementation, impacts to unique archaeological resources would be less than significant.

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

LESS THAN SIGNIFICANT IMPACT. No formal or informal cemeteries or burial grounds are known to be located on the project site. However, there is always potential to encounter subsurface, unrecorded cultural resources and remains during ground-disturbing construction activities.

In accordance with the Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001 et seq.), if human remains are found within BLM administered lands, the project applicant would implement APM CUL-4 to ensure protection of human remains. If human remains are found within the County of Riverside jurisdiction, the applicant must comply with Section 7050.5 of the California Health and Safety Code for protection of human remains. Therefore, with incorporation of APM CUL-4 as part of project implementation and compliance with existing state regulations, impacts to human remains would be less than significant.

3.6 Energy

ENERGY

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

3.6.1 Setting

The project site is located in a wind resource area called San Gorgonio Pass in Riverside County. This area is important for wind-generated power in the region and supports the State of California in meeting its renewable energy goals. Renewable energy produced by the existing Mesa Wind energy facility and by the proposed project would be delivered to California’s electric power transmission grid at an upgraded substation. The renewable energy would then be delivered to California’s end users of electricity through the bulk electric power transmission system, including the high-voltage transmission facilities owned by Southern California Edison (SCE).

Regulatory Background

Federal

Desert Renewable Energy Conservation Plan

The Desert Renewable Energy Conservation Plan (DRECP) is a landscape-scale renewable energy and conservation planning effort covering more than 22 million acres in the California desert. The Mesa Wind energy facility is within the California Desert Conservation Area, which is amended by the Bureau of Land Management (BLM) DRECP Land Use Plan Amendment. The DRECP notes that wind energy developments exist in the Whitewater Canyon Area of Critical Environmental Concern and Special Recreation Management Area, and states that repowering or replacement of existing wind energy facilities will be considered if the repower development remains within the existing right-of-way boundary and would reduce the overall environmental impacts of the wind energy facility (BLM 2016, Appendix B, page 127).

Federal Renewable Energy Mandates

- **Executive Order 13783** (March 28, 2017) promoted “clean and safe development of our Nation’s vast energy resources, while at the same time avoiding regulatory burdens that unnecessarily encumber energy production, constrain economic growth, and prevent job creation.”
- **Executive Order 13212** (May 18, 2001) mandated that “...agencies act expediently and in a manner consistent with applicable laws to increase the production and transmission of energy in a safe and environmentally sound manner.”
- **Executive Order 13807** (August 15, 2017) and **Secretary’s Order 3355** (August 31, 2017) established policy to prioritize infrastructure projects and streamline the environmental review process.

- **Energy Policy Act of 2005, Section 211**, established a goal for the Department of the Interior to approve non-hydropower renewable energy projects on public lands with at least 10,000 megawatts of capacity by 2015. BLM has now authorized more than 17,000 megawatts of non-hydropower renewable energy projects. BLM continues to prioritize renewable energy development on public lands.

State

State of California Renewable Energy Mandates

- **Renewables Portfolio Standard (RPS) Senate Bill (SB) 1078**, passed in September 2002, set the RPS of 20% total renewables generation by 2020.
- **SB 107**, passed in September 2006, accelerated achievement of the 20% RPS to 2010.
- **SB X1-2**, signed in April 2011, raised the RPS goal to 33% in 2020.
- **SB 350**, signed in 2015, increased the RPS goal to 50% in 2030.
- **SB 100**, signed into law in September 2018, revised the RPS goal to 60% by 2030 and set a long-term target of 100% carbon-free energy by December 31, 2045.

Local

County of Riverside General Plan

Chapter 3, Land Use Element. The Wind Energy Resources section discusses the importance and benefits of using wind energy. The General Plan acknowledges the potential issues associated with development of wind generation turbines (WTGs) on nearby communities but outlines several policies to ensure that wind energy can be developed and used, as it has an essential role in generating power for the region.

Applicant Proposed Measures

No Applicant Proposed Measures or other measures regarding energy are required.

3.6.2 Impact Analysis

a. Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

NO IMPACT. Construction and future decommissioning activities associated with the project would require the consumption of fossil fuel resources, for example, diesel fuel and gasoline to power construction equipment and vehicles. Construction would take place on site, using a work force of up to 120 for project construction and 20 for decommissioning. Construction and decommissioning activities would require use of a variety of trucks and other construction equipment, including multiple cranes. Construction would require the manufacture and delivery of new equipment and materials, which would require energy use. Energy use during construction and decommissioning activities would be reduced by implementation of best management practices (BMPs) to minimize unnecessary construction equipment activity and limit the idling of equipment. In the surrounding cities, there may be a small and temporary increase in electricity use due to the workforce temporarily relocating to be closer to the project site. While construction would require the temporary use of energy resources, the project would not result in any potential environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or future decommissioning activities.

Currently, the existing WTGs in operation on the project site have a total capacity of approximately 8 megawatts. The proposed project would produce approximately 30 megawatts of wind energy, which represents a 275% increase in total energy capacity compared to existing conditions. As such, project operations would contribute an increased amount of electrical power from renewable energy resources generated and delivered to SCE's transmission system for California's end users of electricity. No new infrastructure is proposed that would require greater energy consumption compared to the energy demand of the existing wind energy facility. The project would not require additional full-time employees for operations and maintenance activities; therefore, there would be no permanent increase in demand for energy resources on the project site or in the project area. The project would increase the availability of renewable energy delivered to SCE's transmission system, thus reducing the use of fossil fuels for electrical power generation by conventional power plants. As such, operation of the project would result in a beneficial impact with respect to consumption or use of energy resources.

In summary, although the proposed project would increase petroleum use during construction, the use would be temporary and relatively minimal, and operation of the proposed project would introduce new electrical energy, resulting in long-term reduction of fossil fuels for energy production. Therefore, petroleum consumption associated with the proposed project would not be considered inefficient or wasteful and no impact would occur.

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

NO IMPACT. The project would produce electricity in a manner that improves California's ability to supply renewable energy to end-use customers and to achieve statewide renewable energy goals. Electricity from the proposed WTGs would be used to serve the needs of California customers and would facilitate compliance with California's RPS. The project would assist with achieving renewable energy generation goals under SB 100 and SB 350, as well as greenhouse gas emissions reduction goals of the California Global Warming Solutions Act (Assembly Bill 32).

The project would advance the goals of both the state and County guidelines to reduce use of fossil fuels and increase the availability of electricity from wind energy, which is eligible for compliance with the RPS. The project would be consistent with the County General Plan, which recognizes existing wind resources available for development and acknowledges the essential role wind energy plays in generating power for the region. Accordingly, the project would not conflict with or obstruct a state or local plan for renewable energy. Therefore, no impact would occur.

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3.7 Geology and Soils

GEOLOGY AND SOILS

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Be located on geologic units or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

* Geology and soils Threshold d reflects the current 2016 California Building Code (CBC), which is based on the International Building Code (2015), effective January 1, 2017. The CBC is updated every 3 years.

3.7.1 Setting

Regional Geologic Setting

The project site is located in Riverside County, near the City of Desert Hot Springs and the City of Palm Springs. There are four major geomorphic provinces in Riverside County, including the Peninsular Ranges, Salton Trough, Transverse Ranges, and Mojave Desert. The project site is within the eastern end of the Transverse Ranges province, which runs west to east and includes the San Bernardino Mountains in north-central Riverside County. The site is located just north of the Banning (San Gorgonio) Pass, which separates the east–west-trending San Bernardino Mountains of the Transverse Ranges province from the north–south-trending San Jacinto Mountains of the Peninsular Ranges province. The southern project parcel is underlain by slightly consolidated, extensively folded, faulted, and dissected alluvial fan deposits of the Pleistocene Cabazon fanglomerate; the northern parcel is underlain by gneiss and quartz diorite of the

pre-Cambrian San Gorgonio Igneous-Metamorphic Complex (CGS 1965). A site-specific geotechnical study will be completed with one boring for each wind turbine generator (WTG) location.

Seismicity

The project site is within the seismically active Transverse Ranges and is located within the San Andreas Fault Zone (County of Riverside 2000). This portion of the fault zone deviates from the general trend of the entire length of the San Andreas Fault, as this section makes a left-step and bends westward and includes many active fault strands of the San Andreas Fault Zone. This is a complex area that includes right-lateral strike-slip, reverse-oblique, and normal-oblique faults. Active faults of the San Andreas Fault Zone in the project area are the Garnet Hill Fault, San Gorgonio Fault Zone, and Banning Fault (Yule and Sieh 2003). Due to the interrelated nature of these faults, there is a potential that one or more of the fault strands might rupture concurrently with an earthquake on another strand in the vicinity (SCEDC 2020).

Garnet Hill Fault. The Holocene to late Quaternary Garnet Hill fault is approximately 30 kilometers in length and passes near the communities of Whitewater, Palm Springs, and North Palm Springs. The Garnet Hill Fault consists of a series of north-dipping, left-stepping right-lateral strike-slip faults that transition to oblique right-reverse faults at its western end (Yule and Sieh 2003; SCEDC 2020). According to the Southern California Earthquake Data Center (SCEDC) the estimated Moment Magnitude (Mw) for an earthquake on this fault is Mw 6.0 to 7.0. This fault displayed ground cracking along its surface trace after the 1986 North Palm Springs Earthquake; however, the cracking was not surface rupture, but was due to strong shaking (SCEDC 2020). Portions of this fault cross the project site and have been designated Alquist-Priolo Earthquake Fault Zones.

San Gorgonio Pass Fault Zone. The Holocene to Late Quaternary San Gorgonio Pass fault zone is an approximately 35-kilometer-long thrust fault located near the communities of Banning, Cabazon, and Beaumont. The San Gorgonio Pass fault zone has an irregular sawtooth shape and generally consists of east-to-northeast-trending thrust faults with northwest-trending tears (Yule and Sieh 2003). According to the SCEDC the estimated range of magnitudes for an earthquake on this fault is Mw 6.0 to 7.0. Portions of this fault cross the project site and have been designated Alquist-Priolo Earthquake Fault Zones (SCEDC 2020).

Banning Fault. The Banning Fault generally parallels I-10 north of the San Gorgonio Fault Zone for approximately 40 kilometers. The fault passes close to the communities of Banning, Cabazon, and Whitewater. The Banning Fault's most recent rupture was during Holocene time; however, most of the fault appears to be inactive (Yule and Sieh 2003; SCEDC 2020). The SCEDC lists probable magnitude for this fault as Mw 6.0 to 7.2 (SCEDC 2020).

Also located in the project area is a strand of the Cox Ranch Fault Zone, which is considered by the County of Riverside (County) as an active Holocene fault with a County-delineated Earthquake Fault Zone (County of Riverside 2019). This fault zone consists of a group of fault strands that traverse through crystalline basement rocks to the north of the San Gorgonio Pass Fault Zone. These faults are arcuate structures striking predominantly west-northwest to east-west, with the exception of a few short north-south-striking faults. They offset ridgelines and show faceted surfaces and slickensides, but do not show obvious scarps where they cross Holocene alluvium. This fault is not currently considered a potential seismic source by the U.S. Geological Survey (USGS 2020a).

Liquefaction

According to the County of Riverside General Plan, the project site is located in an area of moderate liquefaction susceptibility. The project area has not been mapped by the California Geological Survey (CGS) Seismic Hazards Program. Liquefaction occurs when loose, water-saturated sediments lose strength

and fail during strong ground shaking; it is further defined by the CGS as the transformation of granular material from a solid state into a liquefied state as a consequence of increased pore-water pressure. Liquefaction usually occurs in areas with young, saturated unconsolidated sediments. Based on data from the California Department of Water Resources SGMA Data Viewer (DWR 2020) for a well in the vicinity of the project, groundwater depth is anticipated to be greater than 300 feet below ground surface. Although the site is in a moderate zone for liquefaction, as mapped by the County, the underlying geologic units consist of semi-consolidated Pleistocene deposits and deep groundwater levels, making it unlikely that liquefaction would occur and be a risk at the project site.

Seismic Ground Shaking

Several factors influence how ground motion interacts with structures, making the hazard of ground shaking difficult to predict. What is normally felt during an earthquake are the vibrations caused by the seismic waves propagating through the Earth's crust. These waves can vibrate in any direction at many different frequencies, depending on the frequency content of the earthquake, its rupture mechanism, the distance from the seismic epicenter, and the path and material through which the waves are propagating. Ground shaking due to nearby and distant earthquakes should be anticipated during the life of the project.

The intensity of earthquake-induced ground motions can be described using ground accelerations, represented as a fraction of the acceleration of gravity (g). The CGS Earthquake Shaking Potential Map data were used to estimate approximate ground accelerations in the project area (CGS 2016). The CGS map depicts relatively long-period (1.0-second) ground accelerations with a 2% probability of exceedance in 50 years, which corresponds to a return interval of 2,475 years for a maximum considered earthquake. Long-period shaking affects tall, relatively flexible structures, but also correlates well with overall earthquake damage (CGS 2016). The estimated long-period ground accelerations for the project site range from approximately 0.95 g in the northern portion and 1.45 g in the southern portion, which represent a potential for strong to severe ground shaking in the project area.

As previously discussed, the project site is within the southeastern end of the Transverse Ranges, which is a series of east–west-trending mountain ranges located along the San Andreas Fault Zone where it passes through the Banning (San Geronio) Pass area. The San Andreas Fault Zone is very active, along with other faults in Southern California and the surrounding area. The closest significant earthquake to the project site was the 1986 Mw 6.0 North Palm Springs Earthquake (USGS 2020b); this earthquake was responsible for at least 29 injuries and the destruction of or damage to 51 homes in the Palm Springs–Morongo Valley area. It triggered landslides in the area and ground cracking was observed along the Banning, Mission Creek, and Garnet Hill Faults, but these cracks were due to shaking, not surface rupture (SCEDC 2020).

Subsidence

Land subsidence is a gradual settling or sudden sinking of the ground surface due to removal or displacement of subsurface earth materials. The principal causes include compaction associated with withdrawal of fluids such as groundwater or petroleum, compaction of organic soils, underground mining, or natural compaction or collapse, such as with sinkholes or thawing permafrost. In California, subsidence can also occur as a result of earthquake-induced ground failure, as well as the settling and compaction of unconsolidated sediments during liquefaction. The compaction of susceptible aquifer systems caused by excessive groundwater pumping is the single largest cause of subsidence in California. Fine-grained sediments (clays and silts) within an aquifer system are the main culprits in land subsidence due to groundwater pumping; when groundwater levels decline to historically low levels these fine sediments are susceptible to becoming compressed and having less space to store water. The County Safety Element maps the project area as susceptible to subsidence; the area immediately south of the project site is

mapped as susceptible to subsidence, however, no known subsidence areas are mapped underlying the project site (County of Riverside 2019). Likewise, no subsidence areas are mapped by USGS as underlying the project site (USGS 2020c). Furthermore, there is currently no significant groundwater extraction occurring in the vicinity of the project (DWR 2020).

Soils

The soils in and around the project site include cobbly or gravelly sand, sandy loams, and outcrops. The most prevalent types of soil are the Springdale rock outcrop Etsel family, followed by Chuckawalla cobbly fine sandy loam, on 9% to 30% slopes. These soil types are excessively drained, very deep, and generally prone to erosion on the steeper parts of the project site. These soils do not have the characteristics of expansive soils, which are fine-grained, high-plasticity clays (USDA 2017, 1998). Expansive soils can undergo a significant increase in volume with an increase in water content, and a significant decrease in volume with a decrease in water content. These changes in water content cause the ground to swell and compress. Most of the soils in the project area are well drained and contain little to no clays, which indicates there is little swelling potential.

Slope Stability

Landslides occur when masses of rock, earth, or debris move down a slope. Landslides are a type of “mass wasting,” which denotes any downslope movement of soil and rock under the direct influence of gravity, and the term “landslide” encompasses five modes of slope movement: falls, topples, slides, spreads, and flows. Landslides can be initiated in slopes already on the verge of movement by rainfall, snowmelt, changes in water level, stream erosion, changes in groundwater, earthquakes, volcanic activity, disturbance by human activities, or any combination of these factors (USGS 2020d). The County General Plan’s Earthquake-Induced Slope Instability Map (County of Riverside 2019) shows most of the project area as having no susceptibility to earthquake-induced landslide, with some small areas mapped as having low to locally moderate susceptibility to seismically induced landslides and rockfalls. The project area has not yet been mapped by the CGS Seismic Hazards Program for seismically induced landslide hazards. The slopes in the area range from less than 15% to 30% and greater. No existing landslides are mapped at the project site on the USGS Earthquake-Triggered Ground-Failure Inventories website (USGS 2020e) or on the CGS (2020) Landslide Inventory website.

Paleontology

No known paleontological resources have been identified in the project area or within 1 mile of the project area (CPUC 2015; Western Science Center 2020). The project area consists of two distinct geologic areas separated by the San Andreas Fault. The rocks at the northern extent of the project site include very old plutonic rocks of Cretaceous (66–145 million years ago [MYA]) quartz diorite and granodiorite. Precambrian (>745 MYA) gneissic rocks occur in the majority of the northern portion of the project site, adjacent to the fault zone. These rocks have very low paleontological sensitivity. The project areas south of the fault are entirely Quaternary Cabazon fanglomerates (<2 MYA). This formation is of moderate/unknown paleontological sensitivity. In other parts of Riverside County, scientifically significant fossils such as mammoths, mastodons, ground sloths, and various mammals, as well as plant and microvertebrate fossils, have been recovered from Quaternary alluvial deposits. On April 2, 2020, a qualified paleontologist meeting the standards of the Society of Vertebrate Paleontology visited the site for a reconnaissance survey. He concluded that while the soils are old (> 10,000 years), they do not exhibit depositional characteristics that preserve fossils.

BLM uses the Potential Fossil Yield Classification System (PFYC), which classifies geologic units based on the likelihood of the occurrence of scientifically significant vertebrate, invertebrate, or plant fossils. Recent analysis by Paleo Solutions (Aspen 2015) identified the PFYC value as a 3, moderate, for this area. Very little is known of the actual fossil content of this region and the Class 3 rating is based on the fanglomerates in the project area being of alluvial origin. The fanglomerates in the project area exhibit very coarse and poorly sorted boulders, cobbles, gravels, and sand deposits produced during high- to very-high-energy depositions. These conditions do not produce good fossil preservation or yield, and a PFYC rating of 2–3 may be more appropriate.

Regulatory Background

Federal

Occupational Safety and Health Administration Regulations

Excavating and trenching are among the most hazardous construction operations. The Occupational Safety and Health Administration (OSHA) Excavation and Trenching Standard, Title 29 of the Code of Federal Regulations, Part 1926.650, covers requirements for excavating and trenching operations. OSHA requires that all excavations for which employees could potentially be exposed to cave-ins be protected by sloping or benching the sides of the excavation, supporting the sides of the excavation, or placing a shield between the side of the excavation and the work area. In California, the California Occupational Safety and Health Administration (Cal/OSHA) has responsibility for implementing federal rules relevant to worker safety, including slope protection during construction excavations. Cal/OSHA's requirements are more restrictive and protective than federal OSHA standards.

U.S. Geological Survey National Landslide Hazards Program

In fulfillment of the requirements of Public Law 106-113, USGS created the National Landslide Hazard Program in the mid-1970s. According to USGS, the primary objective of the National Landslide Hazards Program is to reduce long-term losses from landslide hazards by improving understanding of the causes of ground failure and suggesting mitigation strategies. The federal government takes the lead role in funding and conducting this research, but the reduction of losses due to geologic hazards is primarily a state and local responsibility.

International Building Code (formerly Uniform Building Code)

The International Building Code (IBC) is the foundation of the complete Family of International Codes. It is a tool to preserve public health and safety that provides safeguards from hazards associated with the built environment. It addresses design and installation of innovative materials that meet or exceed public health and safety goals. As a model code, the IBC is intended to be adopted in accordance with the laws and procedures of a governmental jurisdiction. When adopting a model code like the IBC, some jurisdictions amend the code in the process to reflect local practices and laws (ICC 2019).

State

Alquist-Priolo Special Studies Zones Act

The Alquist-Priolo Special Studies Zones Act was signed into law in 1972 and renamed to the Alquist-Priolo Earthquake Fault Zoning Act in 1994. The purpose of this act is to mitigate the hazard of fault rupture by prohibiting the location of structures for human occupancy across the trace of an active fault. Before a project can be permitted, cities and counties must require a geologic investigation to demonstrate that

proposed buildings will not be constructed across active faults. Any human-occupied structures must be set back from the fault, usually at least 50 feet.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act passed in 1990 addresses non-surface fault rupture earthquake hazards, including strong ground shaking, liquefaction, and seismically induced landslides. The Seismic Hazard Zone Maps are issued by the State of California and they address the seismic hazards of liquefaction and earthquake-induced landslides pursuant to the Seismic Hazards Mapping Act. The act requires the state geologist to compile and issue maps identifying seismic hazard zones, also referred to as Zones of Required Investigation.

California Building Code

The California Building Code (CBC) has been codified in the California Code of Regulations as Title 24, Part 2. Title 24 is administered by the California Building Standards Commission, which is responsible for coordinating all building standards. Under state law, all building standards must be centralized in Title 24 or they are not enforceable. The purpose of the CBC is to establish minimum standards to safeguard the public health, safety, and general welfare through structural strength, means of egress, facilities, and general stability by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures within its jurisdiction. The CBC is based on the IBC published by the International Code Conference. The CBC contains California amendments based on the American Society of Civil Engineers (ASCE) Minimum Design Standards 7-05. ASCE 7-05 provides requirements for general structural design and includes means for determining earthquake loads and other loads for inclusion into building codes. The provisions of the CBC apply to the construction, alteration, movement, replacement, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures within the jurisdiction of the state of California.

Local

County of Riverside General Plan Safety Element. The Safety Element of the General Plan addresses seismic hazards related to fault rupture and seismically induced liquefaction, landslides and rockfalls, as well as slope and soil instability hazards related to subsidence, expansive and collapsible soils, wind erosion, landslides, rockfalls, and debris flows.

Applicant Proposed Measures

The following Applicant Proposed Measures (APMs) would reduce impacts to geology and soils, and where applicable, are referenced in the impact analysis section below. The full text of the APM AQ-1 is provided in Section 3.3, Air Quality, and the full text of APM BIO-12 is provided in Section 3.4, Biological Resources.

APM GEO-1 Site Design Requirements. Site design and engineering shall be conducted in conformance with recommendations specified in site-specific geotechnical and geologic feasibility studies and soils reports prepared for the project.

APM PAL-1 Paleontological Monitoring. Prior to construction-related excavations, a qualified paleontologist meeting the 2010 Society of Vertebrate Paleontology standards shall be retained, shall attend the preconstruction meeting, and shall present a worker environmental awareness program (WEAP) to the construction crew. The WEAP shall discuss the types of fossils that may potentially be uncovered during project excavations, laws protecting paleontological resources, and appropriate actions to be taken when fossils are discovered.

For excavations below a depth of 10 feet below the original ground surface (i.e., 10 feet below the depth of documented artificial fill) planned for the project in the southern area (wind turbine generators [WTGs] 1, 2, and 3 and the temporary construction facility), a qualified paleontologist or a qualified paleontological monitor meeting the 2010 Society of Vertebrate Paleontology standards shall be present to monitor the excavations for paleontological resources. The qualified paleontologist shall determine if the sediments are old enough and fine-grained enough to warrant continued monitoring. If it is determined that paleontological monitoring need not be continued at the 10-foot depth, then paleontological spot-checking shall occur at 5-foot increments below 10 feet to determine the suitability for fossil preservation. The qualified paleontologist shall produce a final paleontological monitoring report that discusses the paleontological monitoring program, any paleontological discoveries, and the preparation, curation, and accessioning of any fossils into a suitable paleontological repository.

In addition, if excavations below a depth of 10 feet below the original ground surface are planned, a paleontological resources mitigation and monitoring plan shall be prepared for review and approval by the Bureau of Land Management and the California Department of Fish and Wildlife. This plan shall provide the process for monitoring in those areas with excavation more than 10 feet deep, work stoppage for identified paleontological resources, and collection and curation of these resources.

APM AQ-1 Fugitive Dust Control Plan (refer to Section 3.3 for full text of APM).

APM BIO-12 Revegetation (refer to Section 3.4 for full text of APM).

3.7.2 Impact Analysis

- a. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*
- i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

LESS THAN SIGNIFICANT IMPACT. The project site is located in a seismically active region of Southern California, and is traversed by Alquist-Priolo Earthquake Fault Zones for several strands of the San Geronio Pass Fault Zone and Garnet Hill Fault, and by a County Earthquake Fault Zone for the Cox Ranch Fault Zone. No structures (only access roads) are proposed in areas crossed by or within the San Geronio Pass or Garnet Hill Alquist-Priolo Earthquake Fault Zones; however, many of the WTGs would be located within the Cox Ranch Fault Zone. The Alquist-Priolo Earthquake Fault Zoning Act seeks to prevent harm to people or human-occupied structures from surface fault rupture by preventing the placement of human-occupied structures across active faults. The project does not propose the construction of any habitable or human-occupied structures; the existing O&M facility would not be modified as part of the project and it is not located within an Alquist-Priolo Earthquake Fault Zones or a County Earthquake Fault Zone.

The construction phase would be short term and would be conducted in accordance with existing regulations and site-specific geological recommendations. As such, the presence of workers on site during project construction would be temporary. Furthermore, project operations would be similar to existing O&M activities and would not result in additional workers on site or workers being on site for longer durations; it is anticipated that one full-time employee would be on site at any given time. Although an Alquist-Priolo Earthquake Fault Zone is present on the project site, as well as a County Earthquake Fault

Zone, the proposed project would not result in the substantial exposure of people to risk of loss, injury, or death as a result of earthquakes or related events. In addition, although many of the WTGs are located with a County Earthquake Fault Zone and could be damaged due to surface fault rupture, per APM GEO-1 (refer to Section 3.7.1, under Applicant Proposed Measures) geotechnical and geologic feasibility studies and soils reports will be prepared for the project, and the project would be designed and constructed per site-specific geotechnical recommendations. Therefore, because the project includes no habitable structures, the presence of additional workers on site would be temporary, and the project would be designed and constructed according to site-specific geologic recommendations (APM GEO-1), the project would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death, associated with the rupture of a known earthquake fault; impacts would be less than significant.

ii) Strong seismic ground shaking?

LESS THAN SIGNIFICANT IMPACT. The project is located in an area that is prone to ground shaking and the likelihood of a substantial earthquake near the project over the 30-year life of the project is high. There has been limited comprehensive research on the effect of earthquakes and seismic ground shaking on WTGs. Evidence from past earthquakes, both in California and in Japan, has shown that modern WTGs are able to withstand substantial earthquakes without a catastrophic failure (Prowell 2019). The most common damage was foundation damage or buckling of the tower. Because more recent installations of numerous WTGs have occurred in earthquake-prone locations, additional studies are being published, and seismic shaking is considered in the engineering for WTGs (Katsanos et al. 2016), as is required for the proposed project by APM GEO-1. Furthermore, all structures constructed on the project site (e.g., tower foundations, WTG towers) would be constructed to industry standards, as well as specific seismic safety standards of the IBC and CBC, if those standards are more stringent than applicable federal standards (BLM 2016).

Although it is likely that an earthquake would occur over the life of the project that could result in strong seismic ground shaking, the project site is remote and no habitable structures are located in proximity to the proposed WTGs, and the existing O&M facility is the only building in the immediate vicinity. The project does not include construction of any habitable structures. Typically, there is one employee present on site, and the nearest WTG would be more than 3,450 feet from the nearest residence, a distance more than 7 times the total height of the nearest WTG. Because the project would engineer the WTGs to consider strong seismic ground shaking and because of the distance between the WTGs and the nearest residence, there is a very low risk of loss, injury, or death due to seismic ground shaking. Furthermore, project operations, when compared with the existing O&M activities that already occur on the project site, would not result in additional workers being on site for longer durations. As such, while the project would be subject to earthquake faulting, the project would not result in the substantial exposure of people to risk of loss, injury, or death as a result of earthquakes or related events. The project would be designed and constructed according to the recommendations of the geotechnical and geologic feasibility studies and soils reports that will be prepared for the project (APM GEO-1), and with adherence to applicable regulations and building codes. Therefore, the project would not directly or indirectly result in substantial adverse effects associated with strong seismic ground shaking; impacts would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

LESS THAN SIGNIFICANT IMPACT. Soils that are prone to liquefaction are saturated, loose, unconsolidated sediments. The northern portion of the project site is underlain by igneous and metamorphic rocks that are not prone to liquefaction. The southern portion of the project site is underlain by semi-consolidated Pleistocene alluvial deposits of the Cabazon fan conglomerate with groundwater levels of more than 300 feet below ground surface. Due to the deep groundwater levels and the semi-consolidated nature of the Cabazon

fanglomerate it is unlikely that liquefaction would occur in this area. Only small portions of the project site are mapped by the County as having low to moderate susceptibility to seismically induced landslides, with the remainder of the site having no susceptibility to earthquake-induced landslides. No existing earthquake-triggered landslides are mapped by USGS on or near the project site. The project would be designed in accordance with geotechnical recommendations per geotechnical and geologic feasibility studies and soils reports that will be prepared for the project (APM GEO-1), as well as all applicable codes and regulations to prevent slope failure. Therefore, impacts would be less than significant.

iv) Landslides?

LESS THAN SIGNIFICANT IMPACT. Landslides generally occur in areas with steep slopes underlain by poorly consolidated or weak geologic units. Landslides may be induced by a variety of factors (e.g., rainfall, snowmelt, changes in water level, stream erosion, changes in groundwater, earthquakes, volcanic activity, disturbance by human activities, or any combination of these factors) and typically occur on slopes already on the verge of movement (USGS 2020c). The County General Plan's Earthquake-Induced Slope Instability Map (County of Riverside 2019) shows most of the project area as having no susceptibility to earthquake-induced landslide, with some small areas mapped as having low to locally moderate susceptibility to seismically induced landslides and rockfalls. The project area has not yet been mapped by the CGS Seismic Hazards Program for seismically induced landslide hazards. Although portions of the project area are on areas of 30% slope or greater, no existing landslides have been mapped in the project area by CGS (2020). Although the project construction phase requires some grading and compaction on roads and work sites, the work would be conducted in accordance with the site-specific geotechnical recommendations according to geotechnical and geologic feasibility studies and soils reports that will be prepared for the project (APM GEO-1), as well as all applicable codes and regulations to prevent slope failure. Therefore, the project would not directly or indirectly cause substantial impacts related to landslides; impacts would be less than significant.

b. Would the project result in substantial soil erosion or the loss of topsoil?

LESS THAN SIGNIFICANT IMPACT. Based on the County General Plan, the wind erodibility rating at the project site is moderate to high due to the dry soils, steep slopes, and severe wind (County of Riverside 2019). The project would comply with South Coast Air Quality Management District Rule 402 (Nuisance) and Rule 403 (Fugitive Dust). Rule 402 requires dust suppression techniques to prevent particles from becoming a nuisance off site, and Rule 403 requires control measures to reduce fugitive dust from active operations (SCAQMD 1976a, 1976b). The project construction process would take measures to reduce wind erosion of soils, including a fugitive dust control plan to reduce wind erosion (APM AQ-1; refer to Section 3.3.1, under Applicant Proposed Measures). A site-specific stormwater pollution prevention plan would be required and would prevent erosion due to precipitation. The stormwater pollution prevention plan would include best management practices (BMPs) to control erosion and for diverting water flow around disturbed areas, managing overland flow with temporary and permanent measures such as silt and straw fencing, and stabilizing areas of concentrated flow. Topsoil would be eliminated in areas where new grading would occur. Grading activities would be required to conform to the incumbent version of the CBC, the County Code, the approved grading plans, and good engineering practices. Stabilization and revegetation post-construction would be required in temporarily disturbed areas (APM BIO-12; refer to Section 3.4.1, under Applicant Proposed Measures). After construction, roads would be maintained to reduce erodibility, and overall there would be less land disturbance than under current conditions, as the number of WTGs would be reduced from 460 to 8, and the length of the access roads would be reduced from 11.9 miles to 5 miles. Standard soil erosion reduction requirements and APMs would ensure that this impact would be less than significant.

c. Would the project be located on geologic units or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

LESS THAN SIGNIFICANT IMPACT. The project would not be located on geologic units that are unstable or would become unstable as a result of the project. Although there are fault lines near the project site, the geology of the area is relatively stable due to the deep groundwater and the types of geologic units underlying the site. The project area has no history of subsidence, it has only small areas mapped as having low to moderate earthquake-triggered slope instability, and there are no existing mapped landslides in the project area. Project engineering would consider the geology, soils, and seismic hazards of the site for each WTG and would implement recommendations as outlined in the geotechnical and geologic feasibility studies and soils reports that will be prepared for the project (APM GEO-1). Because the project site is not located on unstable geologic units, nor geologic units that would become unstable as a result of the project, there would be low risks of landslide, lateral spreading, liquefaction, or collapse as a result of the project, and impacts would be less than significant.

d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

NO IMPACT. The project is located on soil that has low potential for expansion due to the composition being mainly sandy, gravelly, or loamy. These soils do not have the characteristics of expansive soils, which are fine-grained, high-plasticity clays (USDA 2017, 1998). The soils underlying the project site are well-draining soils that do not hold water and do not expand. As such, the project would not be located on expansive soil and would not create substantial direct or indirect risks to life or property. Therefore, there would be no impact.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?

NO IMPACT. Currently, the project site contains soils capable adequately supporting a septic system and a septic system is currently in use. No changes are anticipated to wastewater volumes, because the number of on-site personnel would remain the same during project operations, and temporary chemical toilets would be used on site during project construction. Thus, the temporary increase in workers on site during project construction would not impact the capacity of the existing septic system. During operation, wastewater from the minimal number of employees on site would be the same as existing conditions and would be disposed of within the on-site septic system; alternative wastewater disposal systems would not be required. Furthermore, project construction activities would be temporary, and water used during project construction would primarily be used for earthwork compaction and dust control and substantial amounts of wastewater would not be produced. Therefore, the project would not result in any impacts related to soils capable of supporting the use of septic tanks or alternative wastewater disposal systems.

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

LESS THAN SIGNIFICANT IMPACT. There are no known recorded fossil locations in the project area. The project would have no direct or indirect impacts on paleontological resources in the northern section because the geology in this area has very low sensitivity for paleontological resources. In the southern area, the Cabazon fanglomerates have a moderate sensitivity for paleontological resources. With PYFC 2 and 3 classifications present in the southern portion of the project site, there is a limited potential to encounter buried paleontological resources during groundbreaking activities associated with the project. In the event of inadvertent discovery of paleontological resources, APM PAL-1 (refer to Section 3.7.1, under Applicant Proposed Measures) would reduce the potential for impacts to unknown, buried

paleontological resources because it would require appropriate training for on-site construction crews regarding paleontological resources and paleontological monitoring in locations where there is a potential for paleontological resources. Therefore, with implementation of APM PAL-1, impacts to paleontological resources would be less than significant.

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3.8 Greenhouse Gas Emissions

GREENHOUSE GAS EMISSIONS

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

3.8.1 Setting

Physical Setting. The global climate depends on the presence of naturally occurring greenhouse gases (GHGs) to provide what is commonly known as the “greenhouse effect” that allows heat radiated from the Earth’s surface to warm the atmosphere. The greenhouse effect is driven mainly by water vapor, aerosols, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and other constituents. Globally, the presence of GHG affects temperatures, precipitation, sea levels, ocean currents, wind patterns, and storm activity.

Human activity directly contributes to emissions of six primary anthropogenic (human-caused) GHGs: CO₂, CH₄, N₂O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). The standard definition of anthropogenic GHGs includes these six substances under the 1997 Kyoto Protocol (UNFCCC 1998). The most important and widely occurring anthropogenic GHG is CO₂, which is emitted primarily from the use of fossil fuels as a source of energy.

Effects of GHG Emissions. Changing temperatures, precipitation, sea levels, ocean currents, wind patterns and storm activity provide indicators and evidence of the effects of climate change. From 1950 onward, relatively comprehensive data sets of observations are available. Research by California’s Office of Environmental Health Hazard Assessment documents climate change indicators by categorizing the effects as follows: changes in California’s climate; impacts to physical systems, including oceans, lakes, rivers, and snowpack; and impacts to biological systems, including humans, vegetation, and wildlife. The primary observed changes in California’s climate include increased annual average air temperatures, more frequent extremely hot days and nights, and increasing severity of drought. Impacts to physical systems affected by warming temperatures and changing precipitation patterns show decreasing snowmelt runoff, shrinking glaciers, and rising sea levels. Impacts to terrestrial, marine, and freshwater biological systems, with resulting changes in habitat, agriculture, and food supply, are occurring in conjunction with the potential to impact human well-being (OEHHA 2018).

California GHG Emissions Trends. California first formalized a strategy to achieve GHG reductions in 2008, when California produced approximately 487 million metric tons of CO₂ equivalent (MMT CO₂e) according to the official California Air Resources Board inventory (CARB 2019). The state’s economy-wide emissions have been declining in recent years. California’s GHG sources emitted approximately 424 MMT CO₂e in 2017 (CARB 2019), which was less than 10% of the U.S. GHG emissions total for 2017 of 6,457 MMT CO₂e.

Regulatory Background

Federal

No federal regulations associated with GHG emissions apply to the proposed project.

State

California Global Warming Solutions Act of 2006 (Assembly Bill 32)

The California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32) required that California's GHG emissions be reduced to 1990 levels by 2020. The reduction is being accomplished through an enforceable statewide cap on global warming emissions beginning in 2012. AB 32 directs CARB to develop regulations and a mandatory reporting system to track and monitor global warming emissions levels (AB 32, Chapter 488, Statutes of 2006). The CARB Climate Change Scoping Plan, initially approved December 2008 (CARB 2008) and most recently updated by CARB in December 2017, provides the framework for achieving California's goals (CARB 2017).

In passing AB 32, the California Legislature found and declared the following (AB 32, Section 38501[a]):

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

Other major executive orders, legislation, and regulations adopted for the purpose of reducing GHG emissions support the implementation of AB 32 and California's climate goals, as described below.

California Governor's Executive Orders on GHG Emissions

In September 2018, Executive Order B-55-18 established a new statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and to achieve and maintain net negative emissions thereafter. CARB was directed to develop the framework for implementing the goal of carbon neutrality. Executive Order B-30-15 (April 2015) established a California GHG reduction target of 40% below 1990 levels by 2030. One purpose of this interim target is to ensure that California meets its target of reducing GHG emissions to 80% below 1990 levels by 2050 (Executive Order S-3-05, June 2005). This executive order also specifically addresses the need for climate adaptation and directs state agencies to update the California Climate Adaptation Strategy to identify how climate change will affect California infrastructure and industry and what actions the state can take to reduce the risks posed by climate change. Senate Bill (SB) 32 of 2016 codified this GHG emissions target to 40% below the 1990 level by 2030.

California Renewables Portfolio Standard Program

Electric utilities in California must procure a minimum quantity of the sales from eligible renewable energy resources as specified by the California Renewables Portfolio Standard (RPS) requirements. The Clean Energy and Pollution Reduction Act of 2015 (SB 350) established California's state policy objectives on long-term energy planning and procurement, as signed into law on October 7, 2015. The 100 Percent Clean Energy Act of 2018 (SB 100) revised the RPS targets to establish the policy that eligible renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers and 100% of electricity procured to serve all state agencies by December 31, 2045. With SB 350 and SB 100, California's objectives include the following:

- To set the RPS for the procurement of California's electricity from renewable sources at 33% by 2020, 50% by 2026, and 60% by 2030

- To plan for 100% of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045
- To double the energy efficiency savings in electricity and natural gas end uses by retail customers by 2030.

Cap-and-Trade Program

The California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation (Cap-and-Trade Program; 17 CCR 95801–96022) was initially approved by CARB in 2011. The Cap-and-Trade Program applies to covered entities that fall within certain source categories, including petroleum refiners and suppliers of transportation fuels, and is triggered when facility emissions exceed 25,000 metric tons (MT) CO₂e in a year. The covered entities must hold compliance instruments sufficient to cover the actual GHG emissions, as evidenced through CARB’s Mandatory Reporting Regulation requirements. This means that transportation fuel suppliers bear the GHG compliance obligation in the Cap-and-Trade Program for the GHG emissions from motor vehicle and off-road equipment fuels used by construction workforces and crews.

Emission Reductions of SF₆ from Gas Insulated Switchgear

In 2010, CARB adopted a regulation for reducing or phasing-out SF₆ emissions from electric power system gas-insulated switchgear (17 CCR 95350–95359). The regulation requires owners of such switchgear to (1) annually report their SF₆ emissions, (2) determine the emission rate relative to the SF₆ capacity of the switchgear; (3) provide a complete inventory of all gas-insulated switchgear and their SF₆ capacities; (4) produce an SF₆ gas container inventory; and (5) keep all information current for CARB enforcement staff inspection and verification.

Local

County of Riverside Climate Action Plan Update

The County of Riverside (County) Climate Action Plan Update (CAP) establishes goals and policies for the County to incorporate environmental responsibility into its daily management of residential, commercial, and industrial growth. The CAP includes GHG inventories of community-wide and municipal sources based on the data available for the year 2008. Emissions within the scope of the inventories include transportation, electricity and natural gas use, landscaping, water and wastewater pumping and treatment, and treatment and decomposition of solid waste. The County’s 2008 community-wide inventory amounted to 7.013 MMT CO₂e for the unincorporated areas and 226,753 MT CO₂e from municipal operations (County of Riverside 2019).

The CAP includes a threshold level of 3,000 MT CO₂e per year that allows the County to identify projects that may require a project-specific technical analysis to quantify and mitigate emissions (County of Riverside 2019).

County of Riverside General Plan

The County General Plan’s Air Quality Element (County of Riverside 2018) includes one policy directly relevant to the proposed project:

- AQ 20.19** Facilitate the development and siting of renewable energy facilities and transmission lines in appropriate locations.

Applicant Proposed Measures

No Applicant Proposed Measures or other measures regarding GHG emissions are required.

3.8.2 Impact Analysis

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

LESS THAN SIGNIFICANT IMPACT. The activities associated with the project include mobilizing construction equipment, crews, and materials for construction of the repowered energy facility, operations and maintenance (O&M) of the new WTGs, and future decommissioning activities. These activities would cause GHG emissions due to fuel combustion by the construction vehicles and off-road equipment. Equipment and motor vehicles would directly emit CO₂, CH₄, and N₂O due to fuel use and combustion. Motor vehicle fuel combustion emissions in terms of CO₂e are approximately 95% CO₂, with CH₄ and N₂O emissions occurring at rates of less than 1% of the mass of combustion CO₂ emissions.

Construction Emissions

Construction of the proposed project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, on-road vendor trucks, and worker vehicles. The California Emissions Estimator Model (CalEEMod) was used to calculate the annual GHG emissions based on the construction scenario described in Section 2.4. Construction of the proposed project is anticipated to commence in July 2021 and be completed in March 2023. Table 3.8-1 presents construction emissions for the proposed project from on-site and off-site emission sources.

Year	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons per Year			
2021	1,295.86	0.17	0.00	1,300.19
2022	1,536.41	0.23	0.00	1,542.15
2023	74.15	0.01	0.00	74.37
			Total	2,916.71
	<i>30-Year Amortization of Construction Emissions</i>			<i>97.22</i>

Source: Appendix B.

Notes: CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent.

As shown in Table 3.8-1, the estimated total GHG emissions during construction of would be approximately 2,916.71 MT carbon dioxide equivalent (CO₂e) over the construction period. Estimated project-generated construction emissions amortized over 30 years would be approximately 97.22 MT CO₂e per year. As with project-generated construction criteria air pollutant emissions, GHG emissions generated during construction of the proposed project would be short term in nature, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions.

Decommissioning Emissions

Decommissioning of the proposed project would result in GHG emissions, which are primarily associated with use of off-road equipment, on-road vendor trucks, and worker vehicles.

CalEEMod was used to calculate the annual GHG emissions based on the decommissioning scenario described in Section 2.6, Final Decommissioning and Reclamation. Decommissioning of the proposed project is anticipated to commence in January 2053 and would last up to 12 months. On-site sources of

GHG emissions include off-road equipment and off-site sources, including trucks and worker vehicles. Table 3.8-2 presents decommissioning emissions for on-site and off-site emission sources associated with the proposed project.

Table 3.8-2. Estimated Annual Decommissioning Greenhouse Gas Emissions

Year	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons per Year			
2053	423.52	0.01	0.00	423.88
<i>30-Year Amortization of Construction Emissions</i>				14.43

Source: Appendix B.

Notes: CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent.

As shown in Table 3.8-2, the estimated total GHG emissions during decommissioning of the proposed project would be approximately 423.88 MT CO₂e over the decommissioning period. Estimated project-generated decommissioning emissions amortized over 30 years would be approximately 14.43 MT CO₂e per year. The combined amortized construction and decommissioning GHG emissions would be approximately 111.65 MT CO₂e per year.

Operation Emissions

During project operation, the proposed WTGs would produce electricity that would displace the need to produce electricity from traditional (fossil-fueled) resources. Separate discussions appear for the GHG emissions caused by construction and O&M, and for the indirect GHG emissions reductions due to the renewable energy generated by the project. The estimated GHG emissions during project operations would be approximately 130.79 MT CO₂e per year.

Other GHG effects would be due to minor new stationary sources added by the proposed project, such as gas-insulated switchgear containing SF₆, which could leak over the life of the project. Emissions of SF₆ are unquantified, although these would be minimized and avoided through compliance with CARB regulations. Furthermore, installation of the proposed project features would also result in a small amount of new temporary and permanent ground disturbance (approximately 98.0 acres), which would eliminate a minor, unquantified amount of natural sequestration of carbon (soil and vegetation act as a sink by removing CO₂ from the atmosphere).

Emissions Avoided by Producing Electricity

The proposed WTGs would produce approximately 30 megawatts of wind energy, the same nameplate capacity of the existing Mesa Wind energy facility. However, the Mesa Wind energy facility currently produces approximately 8 megawatts per year due to the number of turbines that are no longer functional. As such, the proposed project would increase total energy capacity by approximately 275%. Any production of renewable power above the baseline production would displace power produced by carbon-based fuels that would otherwise be used to meet electricity demand. The power displaced is incremental power provided by generators elsewhere on the grid, typically from natural gas power plants. Because the electricity produced by the proposed project would displace fuel burning by California's flexible natural-gas-fired resources, the project would avoid GHG emissions that would otherwise be emitted elsewhere on the grid. The quantity of avoided GHG emissions is anticipated to be reduced over time due to compliance with California's statewide GHG reduction targets (see Regulatory Background in Section 3.8.1, Setting).

The combined GHG emissions project operations and amortized construction/decommissioning would be approximately 242.44 MT CO₂e per year over a 30-year lifetime. Therefore, the total annual emissions

would not exceed the County's GHG significance threshold of 3,000 MT CO₂e per year. As such, the GHG emissions generated by the proposed project would be considered less than significant.

b. Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

LESS THAN SIGNIFICANT IMPACT. The project would produce electricity in a manner that would improve California's ability to supply renewable energy to end-use customers and to achieve statewide renewable energy goals.

Consistency with Federal and State Regulations

Electricity from the proposed WTGs would be used to serve the needs of customers and would facilitate compliance with the RPS, as set forth by SB 350 and SB 100. The GHG emissions avoided by producing electricity would be consistent with and would not conflict with California's GHG emissions reduction targets, as set forth by AB 32, SB 32, and the Climate Change Scoping Plan. Overall, the electricity produced by the project would contribute to the continued reduction of GHG emissions in California's power supply.

Other project activities related to construction and O&M either would be exempt from or would be required to comply with CARB rules and regulations to reduce GHG emissions. Project activities would not conflict with California's GHG emissions reduction targets, as set forth in the Climate Change Scoping Plan. The following major policies are listed as "known commitments" in the 2017 Climate Change Scoping Plan (CARB 2017):

- **Renewables Portfolio Standard and SB 350.** Reduce GHG emissions in the electricity sector through the implementation of the 50% RPS and doubling of energy savings (SB 350).
- **Low Carbon Fuel Standard.** Transition to less-polluting transportation fuels that have a lower carbon footprint.
- **Mobile Source Strategy.** Reduce GHG and other pollutant emissions from the transportation sector through transition to zero-emission and low-emission vehicles, cleaner transit systems, and reduction of vehicle miles traveled.
- **Cap-and-Trade Program.** Implement the post-2020 Cap-and-Trade Program to reduce GHG from large sources, such as transportation fuel suppliers, through declining caps to ensure that the state's 2030 target is achieved.

Project activities related to both construction and O&M would emit GHGs mostly through the use of transportation fuels that are within the policies of the Climate Change Scoping Plan. The majority of emissions would be from mobile sources (e.g., off-road equipment and on-road motor vehicles) that are not directly subject to GHG controls but would be users of transportation fuels from refiners and suppliers that are required to comply with the CARB Cap-and-Trade and Low Carbon Fuel Standard regulations to reduce GHG emissions. Stationary source emissions of SF₆ would be subject to and required to comply with the CARB regulation for GHG emissions from gas-insulated switchgear (17 CCR 95350–95359).

Consistency with the County of Riverside Climate Action Plan Update

Table 3.8-3 provides an overview of the measures and goals within the CAP that are applicable to the proposed project and the project's consistency with them. As shown in Table 3.8-3, the proposed project does not conflict with any of the GHG-reducing measures or goals within the County CAP and thus is consistent with the CAP.

Table 3.8-3. Project Consistency with the County of Riverside Climate Action Plan Update Greenhouse Gas Emission Reduction Strategies

Measure Number	Measure Description	Project Consistency
R2-CE1	Clean Energy	Consistent. The proposed project would produce up to 30 megawatts of renewable electricity through new WTGs.
R2-CE2	Community Choice Aggregation Program	Consistent. The proposed project would produce up to 30 megawatts of renewable electricity through new WTGs that local governments could purchase on behalf of their residents in support of a community choice aggregation program.
R2-W1	Water Efficiency through Enhanced Implementation of Senate Bill X7-7	Consistent. The proposed project would not use result in increased water demand during operations compared to existing conditions.
R2-S1	Reduce Waste to Landfills	Consistent. During future decommissioning, WTGs would be dismantled and recycled to the extent feasible to reduce any waste going to the landfills. In addition, the proposed project would utilize existing infrastructure to the extent feasible to avoid waste associated with demolition.

Source: County of Riverside 2019.

Note: WTG = wind turbine generator.

In summary, the proposed WTGs would contribute to a net reduction in GHG emissions across the state's electricity system and contribute to meeting the state and County GHG reduction goals under AB 32 and subsequent targets for 2030 and beyond; other project activities would cause no potential conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. As such, the project would not conflict with any applicable GHG management plan, policy, or regulation. This impact would be less than significant.

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3.9 Hazards and Hazardous Materials

HAZARDS AND HAZARDOUS MATERIALS

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

3.9.1 Setting

This section addresses issues related to environmental hazards and hazardous materials in the project area. Environmental hazards include accidental spills of hazardous materials, the presence of existing subsurface contamination, the risk of wildfire, and aircraft safety. On-site hazardous materials include diesel and gasoline fuel, transformer oil, used oil filters, and lubricants associated with ongoing maintenance of the existing Mesa Wind energy facility. The diesel and gasoline fuel are stored in a fuel tank truck. Hazardous materials can include the original manufactured product or waste derived from use of such products, either in containers or as contaminated soil/groundwater due to spills of such substances. If encountered, contaminated soil can pose a health and safety threat to workers or the public.

Environmental Background

Existing Hazardous Materials Sites

A search of the State Water Resources Control Board GeoTracker website (SWRCB 2020) and the Department of Toxic Substances Control (DTSC) EnviroStor database (DTSC 2020) revealed that there is one site within 1 mile of the project site that has been identified as a hazardous materials site. The identified site was a leaking underground storage tank, which resulted in diesel fuel in soil. The case was

closed with respect to regulatory compliance in 1986 and has a cleanup status of “completed.” There are no active hazardous materials sites within 1 mile of the project site.

Fire Hazards

The California Department of Forestry and Fire Protection (CAL FIRE) is responsible for designating wildfire threat classifications for lands throughout the state. This data is presented in Fire Hazard Severity Zone (FHSZ) maps, which were adopted in 2007, and geographically rank wildfire risk as Moderate, High, or Very High. The project area contains land classified as Moderate and Very High FHSZs (CAL FIRE 2007). These threat levels reflect potential fire behavior, based on factors such as existing vegetation, topography, climate, fire history, expected fire frequency, and several other factors that contribute to the fire environment (CAL FIRE 2007). The applicant has developed a Fire Management Plan for its current operations. The current Fire Management Plan includes a description of fire response services, facility access points, water availability, and other critical information about the facility design as well as fire prevention and risk reduction measures. The Fire Management Plan also includes information about post-fire response and will be updated to accommodate the proposed repower project (APM FIRE-2).

Schools

There are no public schools, preschools, daycare centers, or private educational facilities within 0.25 miles of the project site. The closest school is Cabazon Elementary School, located more than 5 miles to the southwest of the project site.

Airports

There are no airports or airstrips located within 2 miles of the project. The closest airports to the project site are the Banning Municipal Airport, which is more than 10 miles west of the project site, and the Palm Springs International Airport, approximately 10 miles southeast of the project site.

Emergency Response and Evacuation Plans

The Riverside County Emergency Management Department works to provide an all-hazards approach to emergency management (County of Riverside 2020a). The Emergency Management Department is responsible for writing, reviewing, and updating the Riverside County Emergency Operations Plan (EOP). The EOP, last updated in 2019, is designed to be a reference tool for coordinating emergency response and recovery operations in the County (County of Riverside 2019a). In addition, many cities within the County have their own emergency response plans.

The Riverside County EOP describes various hazard situations that may arise in the County. Earthquakes, wildland fire, and flooding are the most common incidents in the County of Riverside (the County), followed by electrical and communication failure and utility outages (County of Riverside 2019a).

In the event of an emergency requiring evacuation and emergency vehicle access, the Riverside County Sheriff’s Department, in collaboration with the Riverside County Transportation and Land Management Agency, city law enforcement, the California Department of Transportation (Caltrans), and the California Highway Patrol, would establish evacuation routes.

Regulatory Background

The following regulations and policies pertain to hazards and hazardous waste. Refer to Section 3.20, Wildfire, of this Initial Study for regulations related to wildfire hazards and fire safety.

Hazardous substances include hazardous materials and hazardous waste, which are defined by federal and state regulations that aim to protect public health and the environment. Hazardous materials and waste are classified based on specific chemical, physical, or infectious properties as defined in the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 101(14), and also in the California Code of Regulations (CCR), Title 22, Chapter 11, Article 2, Section 66261 (22 CCR 66261), which provides the following definition:

A hazardous material is a substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed.

For this analysis, soil that is excavated from a site containing hazardous materials would be considered hazardous waste if it exceeded specific Title 22 criteria or criteria defined in CERCLA or other relevant federal regulations. Remediation (cleanup and safe removal/disposal) of hazardous wastes found at a site is required if excavation and/or exposure of these materials occurs. Even if soils or groundwater at a contaminated site do not have the characteristics required to be defined as hazardous wastes, remediation of the site may be required by regulatory agencies subject to jurisdictional authority. Types of nonhazardous soil and groundwater contaminants include petroleum products, such as gasoline, diesel, waste oil, and solvents. Cleanup requirements are determined on a case-by-case basis by the agency taking lead jurisdiction.

Federal

Toxic Substances Control Act of 1976

The federal Toxic Substances Control Act of 1976 tasked the U.S. Environmental Protection Agency (EPA) with authority to require reporting, record-keeping, and testing and to impose restrictions relating to chemical substances and/or mixtures. The federal Toxic Substances Control Act addresses the production, importation, use, and disposal of specific chemicals, including PCBs, asbestos, radon, and lead-based paint (EPA 2017).

Resource Conservation and Recovery Act of 1976

The Resource Conservation and Recovery Act (RCRA) of 1976 (42 USC, Section 6901 et seq.) established a program administered by EPA for the regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the “cradle to grave” system of regulating hazardous waste. RCRA regulates hazardous waste from the time that the waste is generated, through to its management, storage, transport, and treatment until its final disposal. In California, EPA has authorized DTSC to administer the RCRA program, pursuant to the state’s Hazardous Waste Control Law.

Comprehensive Environmental Response, Compensation, and Liability Act and the Superfund Amendments and Reauthorization Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), including the Superfund program, was enacted by Congress on December 11, 1980. This law provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA established requirements concerning closed and

abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for cleanup when no responsible party could be identified. CERCLA also enabled the revision of the National Contingency Plan, which provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, and/or contaminants. The National Contingency Plan also established the National Priorities List, which is a list of sites of national priority among known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.

Hazardous Materials Transportation Act

The U.S. Department of Transportation regulates hazardous materials transportation between states under the Code of Federal Regulations, Title 49, Chapter 1, Parts 100–185. In California, Caltrans and the California Highway Patrol enforce federal law related to the transport of hazardous materials. Together, these agencies determine driver training requirements, load labeling procedures, and specifications for container types.

Occupational Safety and Health Act and Occupational Safety and Health Administration

The Occupational Safety and Health Act of 1970 was passed to prevent workers from being killed or seriously harmed at work. The Occupational Safety and Health Act created the Occupational Safety and Health Administration (OSHA), which sets and enforces protective workplace safety and health standards. OSHA also provides information, training, and assistance to employers and workers.

Oil Pollution Prevention Regulations

Oil Pollution Prevention regulations (40 USC, Part 112) require the preparation of a spill prevention, control, and countermeasures (SPCC) plan if oil is stored in excess of 1,320 gallons in aboveground storage, or in buried storage with a capacity of 42,000 gallons. SPCC regulations place restrictions on the management of petroleum materials; therefore, they have some bearing on hazardous materials management.

Federal Aviation Administration Standards

The Federal Aviation Administration (FAA) has established standards for marking and lighting structures to promote aviation safety in the Advisory Circular (AC 70/7460-1L). Generally, any temporary or permanent structure, including all appurtenances, that exceeds an overall height of 200 feet (61 meters) above ground level or exceeds any obstruction standard contained in 14 CFR Part 77 should be marked and/or lighted. For construction or alteration of a structure that exceeds 200 feet, under the provisions of 14 CFR Part 77, FAA must be notified by completing a Notice of Proposed Construction or Alteration Form 7460-1. Chapter 13 of the Advisory Circular AC 70/7460-1L defines specific requirements for wind turbine generator (WTG) facilities. Requirements provided consider proximity to airports and Visual Flight Rules (VFR) routes, extreme terrain where heights may vary, and local flight activity. The chapter provides guidelines for configuration of WTGs, marking standards, and lighting standards.

State

Cortese List

California Government Code Section 65962.5 (commonly referred to as the Cortese List) requires that information regarding environmental impacts of hazardous substances and wastes be maintained and provided at least annually to the Secretary for Environmental Protection. This information must include the

following: sites impacted by hazardous wastes, public drinking water wells that contain detectable levels of contamination, underground storage tanks with unauthorized releases, solid waste disposal facilities from which there is migration of hazardous wastes, and all cease and desist orders and cleanup and abatement orders. This information is maintained by various agencies, including DTSC, State Department of Health Services, State Water Resources Control Board, and local Certified Unified Program Agencies.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program was created in 1993 by Senate Bill 1082 to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities of environmental and emergency management programs. The program is implemented at the local government level by Certified Unified Program Agencies. The program consolidates, coordinates, and makes consistent the following hazardous materials and hazardous waste programs (program elements):

- Hazardous Waste Generation (including on-site treatment under Tiered Permitting)
- Aboveground Petroleum Storage Tanks (only the SPCC plan)
- USTs
- Hazardous Material Release Response Plans and Inventories
- California Accidental Release Prevention Program
- Uniform Fire Code Hazardous Material Management Plans and Inventories

California Code of Regulations

Title 19, Hazardous Materials Business Plans

This regulation requires the preparation of a hazardous materials business plan (HMBP) by facility operators (19 CCR 25500–25520). The HMBP identifies the hazards, storage locations, and storage quantities for each hazardous chemical stored on site. The HMBP is submitted to the Certified Unified Program Agency for emergency planning purposes.

Titles 22 and 26, Hazardous Waste

Title 22 contains detailed compliance requirements for hazardous waste generators, transporters and facilities for treatment, storage, and disposal. Because California is a fully authorized state according to RCRA, most regulations at 40 CFR 260, et seq. have been duplicated and integrated into Title 22. However, because DTSC regulates hazardous waste more stringently than EPA does, the integration of state and federal hazardous waste regulations that make up Title 22 does not contain as many exemptions or exclusions as does 40 CFR 260. As with the California Health and Safety Code, Title 22 regulates a wider range of waste types and waste management activities than RCRA does. To aid the regulated community, California has compiled hazardous materials, waste, and toxics-related regulations from CCR Titles 3, 8, 13, 17, 19, 22, 23, 24, and 27 into one consolidated listing: CCR Title 26 (Toxics). However, the hazardous waste regulations are still commonly referred to collectively as “Title 22.”

Title 27, Solid Waste

Title 27 contains a waste classification system that applies to solid waste that cannot be discharged directly or indirectly to waters of the state and that therefore must be discharged to waste management sites for treatment, storage, or disposal. The California Integrated Waste Management Board and its

certified Local Enforcement Agency regulate the operation, inspection, permitting, and oversight of maintenance activities at active and closed solid waste management sites and operations.

California Health and Safety Code

California Hazardous Waste Control Law

DTSC is responsible for the enforcement of the Hazardous Waste Control Law (California Health and Safety Code, Section 25100 et seq.), which is the primary hazardous waste statute in California. The Hazardous Waste Control Law provides for the development of a state hazardous waste program that administers and implements the provisions of the federal RCRA cradle-to-grave waste management system in California. It also provides for the designation of California-only hazardous waste and development of standards that are equal to or in some cases more stringent than federal requirements and establishes criteria for the reuse and recycling of hazardous wastes.

Hazardous Materials Business Plans and Emergency Response Plans

At the state level, Hazardous Materials Business Plan/Emergency Response Plans (California Health and Safety Code, Chapter 6.95) seek to prevent or minimize the damage to public health and safety and the environment from a release or threatened release of hazardous materials and to satisfy community right-to-know laws. This is accomplished by requiring businesses that handle hazardous materials in quantities equal to or greater than 55 gallons, 500 pounds, or 200 cubic feet of gas or extremely hazardous substances above the threshold planning quantity (as outlined in 40 CFR, Part 355, Appendix A) to inventory their hazardous materials, develop an emergency plan, and implement a training program for employees.

California Occupational Safety and Health Administration

The California Occupational Safety and Health Administration (Cal/OSHA) is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are generally more stringent than federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure. The regulations specify requirements for employee training, availability of safety equipment, accident prevention programs, and hazardous substance exposure warnings. The employer is also required, among other things, to have an Illness and Injury Prevention Program.

California Emergency Services Act

The California Emergency Services Act was adopted to establish the state's roles and responsibilities during human-caused or natural emergencies that result in conditions of disaster and/or extreme peril to life, property, or resources of the state. This act is intended to protect health and safety by preserving the lives and property of the state's people.

California Natural Disaster Assistance Act

The California Natural Disaster Assistance Act provides financial aid to local agencies to assist in the permanent restoration of public real property, other than facilities used solely for recreational purposes, when such real property has been damaged or destroyed by a natural disaster. The California Natural Disaster Assistance Act is activated after a local declaration of emergency has been made and the California Emergency Management Agency has given concurrence with the local declaration, or the governor has issued a proclamation of a state emergency. Once the act has been triggered, local government is eligible for certain types of assistance, depending on the specific declaration or proclamation issued.

Local

The primary project facilities (WTGs and substation) are located on land administered by the Bureau of Land Management (BLM), and approximately 1,160 feet of the access roads are located within Riverside County. Therefore, the following is provided for informational purposes.

County of Riverside Ordinances***Ordinance No. 615 – Hazardous Waste Generation, Storage, Handling and Disposal***

This ordinance was promulgated for the purpose of monitoring establishments where hazardous waste is generated, stored, handled, disposed, treated, or recycled and to regulate the issuance of permits and the activities of establishments where hazardous waste is generated. This ordinance designates the Riverside County Department of Environmental Health to enforce the provisions of California Health and Safety Code, Section 25100 et seq., and the “Environmental Health Standards for the Management of Hazardous Waste,” as specified in CCR Title 22, Division 4.5, pertaining to the generation, storage, handling, disposal, treatment and recycling of hazardous waste.

Ordinance No. 651 – Disclosure of Hazardous Materials and Business Emergency Plans

This ordinance implements the State of California’s “Hazardous Materials Release Response Plans and Inventory Law” (California Health and Safety Code, Chapter 6.95) to establish a system for permitting businesses handling hazardous materials. It serves to enforce minimum material standards and designates the Riverside County Department of Environmental Health as the agency responsible for administering and enforcing California Health and Safety Code, Chapter 6.95. The Riverside County Department of Environmental Health may require compliance with the applicable articles of the most current Fire Codes. Pursuant to California Health and Safety Code, Section 25500, the Riverside County Board of Supervisors may also impose additional, more stringent requirements on businesses that handle hazardous materials.

Riverside County Fire Department

The Riverside County Fire Department (RCFD) maintains a hazardous materials (hazmat) team to respond to hazardous materials spills and leaks as well as provide expertise in the safe handling, abatement, and documentation of hazmat emergencies. RCFD implements its program through its Hazardous Materials Response Plan, which is required under CCR Title 8. Riverside County’s team is a two-part company consisting of a hazmat unit and a support unit. All team members are trained to the California Specialized Training Institute “technical specialist” level. RCFD also administers compliance with Ordinance No. 615 (hazardous waste) and Ordinance No. 718 (medical waste) regulations, as well as Section 18.44 of Ordinance No. 348 regarding hazardous waste facilities.

County of Riverside General Plan

The County General Plan contains policies designed to implement federal, state, and local regulations pertaining to hazards and hazardous materials, emergency response and evacuation, and implementation of the County Hazardous Waste Management Plan. For example, the following policies from the General Plan (County of Riverside 2020b, 2019b) may be relevant to the proposed project:

Circulation Element

- C 3.24** Provide a street network with quick and efficient routes for emergency vehicles, meeting necessary street widths, turn-around radius, secondary access, and other factors as

determined by the Transportation Department in consultation with the Fire Department and other emergency service providers.

Safety Element

S 7.3 Require commercial businesses, utilities, and industrial facilities that handle hazardous materials to: install automatic fire and hazardous materials detection, reporting and shut-off devices; and install an alternative communication system in the event power is out or telephone service is saturated following an earthquake.

Emergency Operations Plan

The Riverside County EOP is designed to be a reference tool for coordinating emergency response and recovery operations in the County (County of Riverside 2019a). The EOP describes various hazard situations that may arise in the County, such as natural disasters and human-caused hazards, and provides guidance for addressing such hazards. The EOP also addresses collateral emergencies that may follow a hazard situation, such as hazardous materials spills.

County of Riverside Hazardous Waste Management Plan

The County Hazardous Waste Management Plan includes, but is not limited to, requirements for compliance with federal and state laws pertaining to the management of hazardous wastes and materials and active public participation in hazardous waste management. This plan ensures the coordination of regional hazardous waste facility responsibilities.

Applicant Proposed Measures

The following Applicant Proposed Measures (APMs) would reduce impacts to hazards and hazardous materials, and where applicable, are referenced in the impact analysis section below. The full text of the APM TRA-1 is provided in Section 3.17, Transportation, and the full text of APM FIRE-1 and APM FIRE-2 is provided in Section 3.20, Wildfire.

APM HAZ-1 Hazardous Materials Business Plan. Renew and expand the existing Hazardous Materials Business Plan (HMBP). The existing HMBP shall be updated to accommodate the project and shall be submitted to the Bureau of Land Management for review and approval prior to the start of project construction. The HMBP shall include:

- Business activities
- Business owner/operator identification
- Hazardous materials inventory
- Site map
- Emergency response/contingency plan
- Employee training description

APM HAZ-2 Spill Prevention, Control, and Countermeasures Plan. The existing spill prevention, control, and countermeasures (SPCC) plan shall be updated to accommodate the repower project and submitted to the Bureau of Land Management for review and approval prior to the start of construction. The SPCC plan shall meet the requirements of EPA's Oil Pollution Prevention; Spill Prevention Control and Countermeasure Rule (40 CFR Part

112). The SPCC plan shall include details on oil/fuel storage containers, secondary containment, inspections, testing, record keeping, training, security measures, emergency procedures, key contact information, and spill reporting requirements. The SPCC plan shall include a prediction of the direction, flow rate, and quantity of oil that could be released in a worst-case release. The plan appendix shall include an inspection form and a discharge report form that can be used at the site.

APM TRA-1 **Traffic Management Plan** (refer to Section 3.17 for full text of APM).

APM FIRE-1 **Construction Fire Prevention Plan** (refer to Section 3.20 for full text of APM).

APM FIRE-2 **Fire Management Plan** (refer to Section 3.20 for full text of APM).

3.9.2 Impact Analysis

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

LESS THAN SIGNIFICANT IMPACT. During construction and decommissioning of the project, hazardous materials associated with construction and decommissioning, such as gasoline, diesel fuel, lubricants, and other products used to operate and maintain construction equipment would be routinely transported to/from and used on the project site. The transport, use, and handling of these materials would be a temporary activity coinciding with short-term project construction activities. Project construction would be carried out in accordance with the HMBP and SPCC plan prepared for the project (refer to APM HAZ-1 and APM HAZ-2 in Section 3.9.1), which contain information regarding the presence and storage of hazardous materials, as well as measures that would be implemented in the event of an accidental release or spill. In addition, per APM BIO-4 (refer to Section 3.4, Biological Resources, of this Initial Study), vehicles would be properly maintained to prevent spills or leaks. As further discussed in Section 3.10, Hydrology and Water Quality, the project would be required to obtain a Construction General Permit, which would require implementation of a stormwater pollution prevention plan (SWPPP) and best management practices (BMPs) to prevent contamination of surface water and groundwater. The transport, use, handling, and off-site disposal of hazardous waste would be in accordance with federal, state, and local regulations, including those of EPA, DTSC, Caltrans, Cal/OSHA, RCRA, and Riverside County Department of Environmental Health (the Certified Unified Program Agency for Riverside County). As mandated by OSHA, all hazardous materials stored on site would be accompanied by a Material Safety Data Sheet, which would inform on-site personnel about the necessary remediation procedures in the case of accidental release. Standard operating procedures would be used during construction and decommissioning of the new WTGs to ensure that lubricants do not escape into the environment. The transport, use, and handling of these hazardous materials would be temporary, occurring only during the construction and decommissioning phases of the project.

During project operation, hazardous materials would continue to be used and stored on the project site, but any transport, use, and handling of these materials would be in compliance with applicable federal, state, and local agencies and regulations, as well as being conducted by a permitted and licensed service provider. The project design incorporates modern WTG design, which includes a Supervisory Control and Data Acquisition (SCADA) system ensuring that the WTGs would be shut down immediately at the onset of mechanical disorders, and WTG towers would incorporate structural elements capable of withstanding large seismic events, high winds, and flooding. In addition, because the nearest new WTG is located more than 3,450 feet from the nearest residence and because no schools are located near the project site, potential hazards due to mechanical issues are considered very unlikely. In addition, the project would be

routinely monitored by on-site maintenance personnel, who would regularly inspect the WTGs, and the SCADA system would further ensure safe operations. As mandated by OSHA, all hazardous materials that are stored on site during operation would be accompanied by a Material Safety Data Sheet, which would inform on-site personnel about the necessary remediation procedures in the case of accidental release. The existing HMBP and SPCC plan would be updated for the repower project (refer to APM HAZ-1 and APM HAZ-2 in Section 3.9.1) and provided to all appropriate authorities. These plans would outline construction and operation and maintenance procedures in accordance with all applicable regulations and would provide details on oil/fuel storage containers, secondary containment, inspections, testing, record keeping, training, security measures, emergency procedures, key contact information, and spill reporting requirements. In addition, the project site is not listed as a hazardous materials site pursuant to the Cortese List (California Government Code, Section 65962.5), and no other property in the surrounding area is considered a recognized environmental concern. As such, subsurface construction and decommissioning activities would not expose construction workers or nearby bystanders to contaminated soils. Therefore, the proposed project's impact on the public or the environment related to the routine transport, use, or disposal of hazardous materials would be less than significant.

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

LESS THAN SIGNIFICANT IMPACT. As discussed under Threshold (a), the routine storage, transportation, and use of hazardous materials associated with vehicles and equipment used for project activities could result in an inadvertent release or spill. However, the volume of hazardous materials used for the proposed project is relatively low. The HMBP and SPCC plan (APM HAZ-1 and APM HAZ-2) would be updated for the project, and would include information regarding the presence and storage of hazardous materials and outline measures that would be implemented in the event of an accidental release or spill. Furthermore, the applicant would be required to obtain and adhere to the provisions of a Construction General Permit, which would require preparation of a SWPPP and implementation of BMPs to prevent release of hazardous materials into the environment. As such, potential issues related to a hazardous materials spill are unlikely.

According to WINDEXchange, a website from the U.S. Department of Energy's Wind Energy Technologies Office, WTGs have an excellent safety record (DOE, n.d.). WTG failures are rare events: as of 2014, fewer than 40 incidents had been identified in the modern fleet of more than 40,000 WTGs in the United States at that time. Hazards associated with ice shedding (when ice accumulates on the blades of a WTG and is thrown off) are reduced by sufficient setbacks from residents. According to General Electric's setback considerations, which use industry best practices, the setback distance to ensure safety for blade failure or ice throw would be 1.1 times the tip height of the WTG (GE 2018). The maximum tip height for the project would be up to 492 feet, which indicates the setback would need to be at least 541 feet. The distance from the closest WTG to any residential use is approximately 3,450 feet. As such, project setbacks from the nearest residential use are sufficient for safety in the event of ice shedding or blade failure. In addition, ice buildup and ice shedding can be prevented by cold-weather packages, and proper startup procedures would be used to minimize hazards. Blade failure is rare for modern WTGs. The project includes modern WTG design, and would be equipped with a SCADA system that would shut down WTGs immediately at the detection of any mechanical disorders and would ensure safe operation of the WTGs. This system would alert crew members in case of a hazardous situation to prevent any blade failure or other mechanical failure, or release of hazardous materials related to the WTGs due to such a malfunction. Therefore, the project would not create a significant hazard to the public and impacts would be less than significant.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

NO IMPACT. There are no schools within one-quarter mile of the project; therefore, no impact would occur.

d. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

NO IMPACT. As discussed under Threshold (a), the project site is not located on or near a site that is listed as a hazardous materials site pursuant to the Cortese List, and no other property in the surrounding area is considered a recognized environmental concern. Therefore, no impact would occur.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

NO IMPACT. The project site is not within an airport land use plan and is not within 2 miles of a public airport. The closest airports are the Banning Municipal Airport and the Palm Springs International Airport, which are more than 10 miles away from the project site. Although there is considerable distance between the project site and the nearest airport, because the proposed WTGs and meteorological tower would exceed 200 feet in height, these structures would be affixed with FAA obstruction lighting. The standards and notification requirements set forth by FAA for construction activities that would result in obstructions to FAA-regulated airspace are established by 14 CFR 77. To obtain a permit to construct, FAA requires applicants/developers to submit a "Notice of Proposed Construction or Alteration" form (7460-1) and receive FAA approval/waiver prior to the initiation of construction activities associated with the project.

FAA uses level and sloping imaginary surfaces to determine whether a proposed structure is an obstruction to air navigation. Structures that are identified as obstructions are then subject to a full aeronautical study and increased scrutiny. However, exceeding a Part 77 imaginary surface does not automatically result in the issuance of a determination of hazard. Proposed structures must have airspace impacts that constitute a substantial adverse effect to warrant the issuance of determinations of hazard (14 CFR Part 77.17[a][2], 77.19, 77.21, and 77.23). Public-use airport imaginary surfaces do not overlie the project site; as a result, the new WTGs would not exceed these surfaces.

On November 24, 2020, the FAA issued a Determination of No Hazard to Air Navigation, and based on requirements of the FAA determination, all eight of the new WTGs and the meteorological tower would be affixed with FAA obstruction lighting. Project-specific requirements would be developed in conjunction with the FAA. Based on compliance with FAA requirements and installation of project safety lighting, the project would not result in a safety hazard or excessive noise for people residing or working in the project area due to the distance between the project and the public or public use airport. Therefore, no impact would occur.

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

LESS THAN SIGNIFICANT IMPACT. The project may require short-term road closures during construction and decommissioning due to transfer of oversized equipment and infrastructure. Road closures are not expected during project operations. During construction and decommissioning, the bulk of traffic on public roads caused by the project would be associated with construction worker trips, followed by delivery or removal of WTG components and other construction equipment. If temporary lane closures

are required, the applicant would apply for the necessary permits from Caltrans or local agencies. Furthermore, APM TRA-1 requires that the applicant prepare a traffic management plan prior to project construction. The traffic management plan would include measures designed to reduce the impact of temporary construction traffic and any necessary lane or street closures. Such measures may include, but are not limited to, providing early notification of closures to RCFD and the County Sheriff's Department, residents, and nearby businesses; the use of signage before and during construction activities that clearly delineates detour routes around the lane and street closures; and flaggers to direct traffic in the vicinity of the closures. While temporary traffic delays or lane closures could occur during project construction, they would occur only during the short-term window of construction and decommissioning activities, and alternate routes would be available for emergency evacuation should they be needed. Therefore, the impact would be less than significant.

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

LESS THAN SIGNIFICANT IMPACT. According to CAL FIRE, the project is in both the Moderate FHSZ and the Very High FHSZ, based on the existing fire environment (e.g., vegetation, terrain, climate/weather, and fire history) (CAL FIRE 2007). Project construction could increase the risk of wildfire due to increased activity on site, including the presence of workers, vehicles and equipment. Heat or sparks from the vehicles and equipment could ignite dry vegetation or materials. During construction and decommissioning, the consequences of a fire caused by accidental ignition could be severe depending on the weather conditions and the ability of on-site firefighting personnel. APM FIRE-1 (refer to Section 3.9.1) requires preparation of a Construction Fire Prevention Plan, which would require on-site fire suppression equipment, worker training, and designated fire watch personnel to ensure that small ignitions could be suppressed prior to fire spread. As required by APM FIRE-1, the Construction Fire Prevention Plan would also outline fire prevention and safety practices such as vegetation clearance, smoking restrictions, hot work restrictions, and curtailment of construction activities during red flag warnings, high wind events, or other extreme weather conditions. As such, construction activities would not be permitted, and construction workers would not be on site during extreme fire weather. Furthermore, the presence of construction workers on site would be temporary. With implementation of APM FIRE-1, the risk of fire ignition during project construction would be reduced and project construction would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

During operation, fire ignition could result from operations and maintenance activities, such as the use of vehicles and equipment on site; in addition, there is a potential for a fire to ignite within a WTG. However, the WTGs used in the project would be equipped with a SCADA system with features to prevent fire, and in the event of an emergency an alarm system would notify crew members, who would take appropriate emergency measures. As required by APM FIRE-2 (refer to Section 3.9.1), the existing operational Fire Management Plan would be updated for the project. The Fire Management Plan would include fire prevention procedures and requirements during project operations and maintenance, such as vegetation management around WTGs and designated work areas; fire water supply and other fire suppression equipment; and communication procedures.

In addition, maintained access roads would provide improved access to the project area. During construction, existing and new access roads would be widened to 24 feet and 40 feet where needed for appropriate turning radius. Permanent access roads would be maintained at 16 feet wide following construction. Off-site road improvements to Rockview Drive would involve widening the road to 16 feet and removal of surrounding vegetation. Cleared and maintained roads would provide improved access through the project area for worker vehicles and fire and emergency apparatus, as well as serve as fuel

breaks. Although the project site is within a hazardous fire area, associated activities are not anticipated to cause a wildland fire event due to the implementation of OSHA fire safety standards (OSHA Standard 1920, Subpart L); implementation of the Construction Fire Prevention Plan as required by APM FIRE-1; and updating the existing operational Fire Management Plan, as required by APM FIRE-2. Furthermore, the project would result in a decrease in the number of WTGs on site through removal of all 460 existing WTGs and construction of up to 8 new WTGs. Design and construction of the eight new WTGs would incorporate modern WTG design, which would reduce the risk of fire in the event of mechanical errors, and WTG towers would incorporate structural elements capable of withstanding extreme natural events such as large earthquakes, high winds, and flooding. Therefore, the project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires and the impact would be less than significant. Further analysis related to wildfire risk is included in Section 3.20, Wildfire.

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3.10 Hydrology and Water Quality

HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

3.10.1 Setting

The project site is located in the foothills of the San Bernardino Mountains on the north side of the San Gorgonio Pass. The Whitewater River runs north to south, east of the project area, and the project site is within the Whitewater Hydrologic Unit and the Coachella Valley Basin Planning area. This area is covered by the California Regional Water Quality Control Board Colorado River Basin Region (SWRCB 2019). The site is on mountainous terrain that includes small local drainages that carry runoff to the Whitewater River to the east, and to Cottonwood Creek to the west, which ultimately drains to the Whitewater River via the San Gorgonio River to the south of the project site. The Whitewater River is an intermittent stream that receives water from the Colorado River Aqueduct for groundwater recharge, and ultimately drains to the Salton Sea. Most of the site drains west to Cottonwood Creek and then south to the San Gorgonio River, and only a small portion drains east directly to the Whitewater River.

The climate in the project area is arid, so none of the drainages generate runoff except during the infrequent rains; the streams are characterized as ephemeral. The project site is located within the Whitewater watershed, which is a major watershed within the County (County of Riverside 2015a). Based on a review of topographic maps, aerial photography, and field reconnaissance, there is no clear channel

from Cottonwood Creek or any of the tributaries to the San Gorgonio River, which is also ephemeral in this region. Drainage off the project site occurs entirely through ephemeral streams, indicating that most discharges on those streams infiltrate into the ground and do not contribute to the flow of the San Gorgonio River or the Whitewater River.

The project site is located within the boundaries of the Mission Springs Water District (County of Riverside 2019). The project site lies generally above the Coachella Valley Groundwater Basin (CVGB), which is located primarily below the valley floor, south of the project site. The Coachella Valley Water District (CVWD) manages this basin, which has a storage capacity of approximately 36.5 million acre-feet. Due to human use, there was an annual deficit in groundwater volume of at least 137,000 acre-feet per year as of 1999. However, the groundwater level in this area has been rising due to recharge in the Whitewater River (CVRWGM 2010).

The project site is located primarily along ridgetops, so there is no appreciable off-site drainage. The project area is not within a flood zone, according to the County of Riverside's General Plan Safety Element (County of Riverside 2019); however, some project access roads at lower elevations may traverse flood zones or water crossings, which could flood during high-intensity rain events, as there are multiple small waterways and drainages throughout the project area that are mapped as special flood hazard areas (County of Riverside 2019). For example, the existing project access road from the west crosses Cottonwood Creek, a portion of which is mapped as a special flood hazard area (refer to County of Riverside 2019, Figure S-9).

Regulatory Background

Federal

Clean Water Act (formerly Federal Water Pollution Control Act)

The Clean Water Act (CWA; 33 USC Section 1251 et seq.), formerly the Federal Water Pollution Control Act of 1972, was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). NPDES permitting authority is delegated to, and administered by, California's nine Regional Water Quality Control Boards (RWQCBs). In addition, the State Water Resources Control Board (SWRCB) regulates the NPDES stormwater program. The project is under the jurisdiction of the Colorado River RWQCB and SWRCB.

Section 401—Water Quality Certification

Section 401 of the CWA requires that an applicant for any federal permit (e.g., a U.S. Army Corps of Engineers [USACE] Section 404 Permit) obtain certification from the state that the discharge would comply with other provisions of the CWA and with state water quality standards. For example, an applicant for a permit under Section 404 of the CWA must also obtain water quality certification per Section 401 of the CWA. Section 404 of the CWA requires a permit from USACE prior to discharging dredged or fill material into waters of the United States, unless such a discharge is exempt from CWA Section 404. For the project site, SWRCB must provide the water quality certification required under Section 401 of the CWA because the project site is located within multiple RWQCB jurisdictions. As discussed in Section 3.4, Biological Resources, of this Initial Study, a USACE Section 404 Permit is expected to be required for the project. Water quality certification under Section 401 of the CWA, and the associated requirements and terms, is

required to minimize or eliminate the potential water quality impacts associated with actions requiring the federal permit.

Section 402—National Pollution Discharge Elimination System and Construction General Permits

The CWA was amended in 1972 to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge complies with an NPDES permit. The NPDES permit program, as authorized by Section 402 of the CWA, was established to control water pollution by regulating point sources that discharge pollutants into waters of the United States (33 USC 1342). In California, the U.S. Environmental Protection Agency has authorized SWRCB's permitting authority to implement the NPDES program. Projects that disturb one or more acres are required to obtain NPDES coverage under the California General Permit for Discharges of Storm Water Associated with Construction Activity (also known as the Construction General Permit [CGP]). This permit requires the development and implementation of a stormwater pollution prevention plan (SWPPP), which describes best management practices (BMPs) the discharger must implement to protect stormwater runoff. The SWPPP must contain a visual monitoring program and a chemical monitoring program for non-visible pollutants to be implemented if there is a failure of BMPs. Routine inspection of all BMPs is required under the provisions of the CGP. On September 2, 2009, SWRCB issued a new NPDES CGP (Order No. 2009-0009-DWQ, NPDES No. CAS000002), which became effective July 1, 2010. This new CGP requires that construction and demolition sites meet more stringent, measurable (quantitative) standards for discharge management. New requirements include a risk-based permitting approach, numeric action levels and numeric effluent limitations, post-construction standards for discharges, increased BMP requirements, and increased monitoring and reporting requirements.

Section 404—Waters of the United States

Section 404 of the CWA established a permitting program to regulate the discharge of dredged or filled material into waters of the United States, which include wetlands (33 USC 1344). This permitting program is administered by USACE and enforced by the U.S. Environmental Protection Agency.

State

California Fish and Game Code

Sections 1601–1603 of the California Fish and Game Code require a Streambed Alteration Agreement between the California Department of Fish and Wildlife and any entity proposing to substantially divert or obstruct the natural flow or effect changes to the bed, channel, or bank of any river, stream, or lake. The agreement is designed to protect the fish and wildlife values of a river, lake, or stream.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1967 (California Water Code Section 13000 et seq.) is the basic water quality control law for California. It requires SWRCB and the nine RWQCBs to adopt water quality criteria to protect state waters. SWRCB establishes statewide policy for water quality control and provides oversight of RWQCB operations. In addition to other regulatory responsibilities, the RWQCBs have the authority to conduct, order, and oversee investigation and cleanup where discharges or threatened discharges of waste to waters of the state could cause pollution or nuisance, including impacts to public health and the environment.

Sustainable Groundwater Management Act

This is a collection of bills that together became known as the Sustainable Groundwater Management Act (SGMA), which defines sustainable groundwater management as the “management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results.” SGMA enables local agencies to form Groundwater Sustainability Agencies to manage basins sustainably and requires these Groundwater Sustainability Agencies to adopt Groundwater Sustainability Plans (DWR 2020).

Local

Regional Water Quality Control Board

The project site is located within the jurisdiction of the Colorado River RWQCB (Region 7), which oversees the Whitewater River region (watershed), Municipal Separate Storm Sewer System (MS4) Permit No. R7-2013-0011, and NPDES Permit No. CAS617002, for which the Riverside County Flood Control and Water Conservation District (FCWCD) and the County of Riverside itself are co-principal permittees, with nine municipalities plus CVWD as co-permittees.

Coachella Valley Water Management Plan

The goal of the Coachella Valley Water Management Plan (CVWMP) is to reliably meet current and future water demands in a cost-effective and sustainable manner. The 2010 CVWMP (CVWD 2012) is an update to the 2002 CVWMP.

SGMA Alternative Groundwater Sustainability Plan – Bridge Document for the Indio Subbasin

This document explains why the 2010 CVWMP update is functionally equivalent and meets the requirements for a Groundwater Sustainability Plan. This document focuses on the Indio Subbasin and outlines the sustainable management criteria to meet the requirements of the SGMA. The sustainable management criteria include the following objectives (CVWD 2016):

- Meet current and future water demands with a 10% supply buffer
- Eliminate long-term groundwater overdraft
- Manage and protect water quality
- Comply with state and federal laws and regulations
- Manage future costs
- Minimize adverse environmental impacts

Riverside County Flood Control and Water Conservation District

The FCWCD encompasses 2,700 miles of western Riverside County and extends eastward into the Coachella Valley to include the Cities of Palm Springs, Cathedral City, and Desert Hot Springs. FCWCD also manages Riverside County’s Master Drainage Plans and Area Drainage Plans. FCWCD provides a variety of services, including but not limited to identification of flood hazards and problems; regulation of floodplains, drainage, and development; planning for County watercourses and drainage planning; education for flood prevention and safety; construction of flood control structures and facilities; flood warning and early detection; maintenance and operation of County flood control structures; floodplain management; development review; and NPDES compliance.

Coachella Valley Water District

To the east and within the Coachella Valley, flood control functions are performed by CVWD. CVWD oversees flood protection for nearly 600 square miles. This includes 16 stormwater protection channels and multiple dikes and levees within a system that encompasses roughly 135 miles of channels built along the natural alignments of dry creeks that naturally flow from the surrounding mountains, down onto the Coachella Valley and, ultimately, into the Whitewater River (County of Riverside 2015a). The Whitewater River/Coachella Valley Stormwater Channel, a 50-mile storm channel that runs from the Whitewater area north of Palm Springs to the Salton Sea, serves as the backbone of the stormwater protection system (CVWD, n.d.).

County of Riverside General Plan

The County General Plan contains policies designed to ensure any potential water-related environmental effects are avoided, reduced, or minimized. These policies are contained within the Multipurpose Open Space Element and Land Use Element (County of Riverside 2015b, 2020). Policies include those for management of storm drain systems and natural drainages and aquifers and those for enforcement of national, state, and regional policies designed to protect water quality.

Applicant Proposed Measures

The following Applicant Proposed Measures (APMs) would reduce impacts to water and groundwater supply, and where applicable, are referenced in the impact analysis section below. The full text of the APM BIO-12 is provided in Section 3.4, Biological Resources, and the full text of APM HAZ-1 is provided in Section 3.9, Hazards and Hazardous Materials.

APM WATER-1 Water Supply Commitment Letter. A report shall be submitted to BLM summarizing the results of the well test indicating that the on-site well would not be able to support project construction activities. A water supply commitment letter from the off-site water supplier shall be obtained and submitted to BLM prior to the start of construction.

APM WATER-2 Groundwater Monitoring Plan. A Groundwater Monitoring Plan shall be prepared prior to the start of construction by a qualified professional geologist, hydrogeologist, or civil engineer specializing in groundwater and who is registered in the State of California. This plan shall be submitted by the applicant to BLM for approval. Details of the plan will be finalized based on initial survey of the on-site well(s) and upon discussions between the applicant and BLM but are expected to include the following:

- The Groundwater Monitoring Plan shall provide existing well information and a methodology for monitoring groundwater levels and usage. Monitoring shall be performed during pre-construction, construction, and initial operation of the project, with the intent to establish pre-construction and project-related groundwater trends that can be compared against and related to observed trends at nearby active wells, if any.
- The Groundwater Monitoring Plan shall include a schedule for submittal of quarterly data reports by the applicant to BLM for the duration of the monitoring period. Based on the results of the quarterly reports, the applicant and BLM shall determine whether the project's pumping activities have resulted in water level decline in the project site well, at any wells that may be installed or used for monitoring, or at nearby operating private wells, if any. If significant drawdown occurs at active off-site groundwater supply wells sufficient to adversely affect yield, the applicant shall immediately reduce groundwater pumping until water levels stabilize or recover, to a reasonable level. The

threshold of significance of the water level decline and associated mitigation measure for operating water supply wells shall be outlined in the Groundwater Monitoring Plan.

- The Groundwater Monitoring Plan shall include a schedule for submittal of annual data reports by the applicant to BLM for the first 2 years of the project (including the construction period). These annual data reports shall be prepared and submitted to BLM for review and approval, and shall include at a minimum the following information:
 - Total water used on a monthly and annual basis in acre-feet and a summary of all water level data
 - Identification of trends that indicate potential for off-site wells to experience decline of water level

Based on initial survey of the on-site well(s), BLM shall determine whether operating groundwater supply wells in the vicinity of the project site may be influenced by project activities. The Groundwater Monitoring Plan shall describe additional measures that may be implemented if BLM determines that such additional measures are required, which shall be implemented as agreed upon in the Groundwater Monitoring Plan and with the concurrence of BLM. After the first 2 years of the project, the applicant and BLM shall jointly evaluate the effectiveness of the Groundwater Monitoring Plan and determine whether monitoring frequencies or procedures should be revised or eliminated.

APM BIO-12 **Revegetation** (refer to Section 3.4 for full text of APM).

APM HAZ-1 **Hazardous Materials Business Plan** (refer to Section 3.9 for full text of APM).

3.10.2 Impact Analysis

a. *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

LESS THAN SIGNIFICANT IMPACT. Disturbance of soil during construction could result in soil erosion and lowered water quality through increased runoff, turbidity, and sediment deposition into local drainages. Accidental spills or disposal of harmful materials used during construction could wash into and pollute surface waters or groundwater. Materials that could contaminate the construction area or spill or leak include lead-based paint flakes, diesel fuel, gasoline, lubrication oil, cement slurry, hydraulic fluid, antifreeze, transmission fluid, lubricating grease, and other fluids.

Potential threats to surface water during construction would be minor and limited by SWPPP BMPs required as part of the CGP to prevent erosion and protect the quality of surface water and groundwater. Typical BMPs include equipment staging areas greater than 50 feet from drainages, proper maintenance of vehicles and equipment to reduce incidental leaks and spills, stabilized construction entrances, straw wattles on earthen embankments, sediment filters on existing inlets, or the equivalent. The SWPPP would include measures for diverting flow around disturbed areas, managing overland flow with temporary and permanent measures such as silt and straw fencing, stabilizing areas of concentrated flow, protecting inlets to culverts and catch basins, and preventing tracking of sediment by vehicles. Site inspections would be conducted on a regular basis and after rainfall events exceeding 0.5 inches to ensure proper function of the stormwater control measures described in the SWPPP. Areas of temporary disturbance would be revegetated per APM BIO-12 (refer to Section 3.4.1, under Applicant Proposed Measures). Collectively, these construction BMPs would help retain stormwater and any constituents, pollutants, and sediment

contained therein on the project site, which in turn would help prevent water quality impacts to downstream receiving waters.

In addition, local drainages consist of ephemeral waterways that are typically dry. Should contaminant spills occur during construction, these would be cleaned up immediately prior to stormwater being contaminated and conveyed to downstream waters, including the Whitewater River, Cottonwood Creek, and the San Gorgonio River. Furthermore, contamination of these downstream waters is unlikely due to the lack of connectivity between the on-site tributaries and these water features.

Because the towers would be located on hills, 600 feet or more above the adjacent valley floor, and the CVGB is primarily below the valley floor, CVGB groundwater is well below the maximum depth of excavation, resulting in little likelihood that this groundwater could be affected during construction. Secondary containment for hazardous materials such as fuels would be required by law, and a spill prevention, control, and countermeasures (SPCC) plan would be developed and adhered to (refer to APM HAZ-1 in Section 3.9, Hazards and Hazardous Materials). The SPCC plan would contain information regarding the presence and storage of hazardous materials, as well as measures that would be implemented in the event of an accidental release or spill. The fuels stored on site would be kept in a locked container within a fenced and secure temporary staging area. Temporary portable sanitation facilities would be provided for construction and would be maintained by a licensed hauler.

Potential threats to surface water quality during operations and maintenance (O&M) would be minor. Most O&M activities do not involve ground disturbance except for inspection and maintenance of access roads and pads to minimize the potential for erosion. The only fluids used would be replacement lubricating fluids, which would be minor, and if any spills should occur, they would be subject to the SPCC plan.

With implementation of the SPCC plan (APM HAZ-1), adherence to regulatory requirements, and implementation of BMPs, impacts to surface or groundwater quality would be less than significant.

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

LESS THAN SIGNIFICANT IMPACT. Construction water use is expected to be 13.3 million gallons total, and operational water use would be up to 7,300 gallons per year. Both construction and operation would likely use water drawn from the CVGB because there are no other known aquifers in the area. Water would be provided from an existing on-site well for operations. Construction water would be obtained from an off-site water source within the CVGB. Per APM WATER-1, a will-serve letter from the water provider shall be submitted to the BLM prior to the start of construction. The amount of water required for construction would be minor (about 0.05%) compared to the overall annual deficit of 137,000 acre-feet per year, and would be a temporary use. Water used for operations (approximately 1 acre-foot per year) would be ongoing during the life of the project and would be consistent with the amount of water currently in use for existing operation. In addition, the project applicant would implement APM WATER-1, which requires that a will-serve letter from a water purveyor be submitted to BLM prior to the start of construction, and APM WATER-2, which requires a Groundwater Monitoring Plan to ensure that drawdown does not result in effects to nearby water users. Furthermore, the project would not increase impervious surfaces such that infiltration would be substantially altered. Therefore, the project would not substantially impede sustainable groundwater management of the basin, and impacts would be less than significant.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site?

LESS THAN SIGNIFICANT IMPACT. Project construction could potentially alter drainage flows through the project area compared with existing conditions. Construction activities include excavation and grading for access roads, tower pads, foundations, and installation of towers. These activities could result in soil erosion and potential siltation of water that could enter local drainages. Project construction would be subject to local and state codes and requirements for erosion control and grading. Because construction activities would disturb one or more acres, the project must adhere to the provisions of the NPDES CGP. Construction activities subject to this permit include clearing, grading, and disturbances to the ground, such as stockpiling and excavating. The NPDES CGP requires implementation of a SWPPP, which would include project BMPs designed to prevent erosion and protect the quality of stormwater runoff. The site-specific SWPPP would be required and would include measures for diverting flow around disturbed areas with temporary and permanent BMPs. Sediment-control BMPs may include stabilized construction entrances, straw wattles on earthen embankments, and sediment filters on existing inlets or the equivalent. These measures would prevent erosion and siltation of surface waters.

Furthermore, areas of temporary disturbance would be revegetated (APM BIO-12), which would reduce erosion and increase infiltration over the long term.

Project O&M activities typically would not involve ground disturbance, except for inspection and maintenance of access roads and pads, the latter of which would be conducted to minimize the potential for erosion.

Based on the information above, the project would not result in substantial erosion on or off site and impacts would be less than significant.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

LESS THAN SIGNIFICANT IMPACT. Project construction would nominally alter existing topography and existing drainage flows. However, the project site is not located in a flood hazard area (County of Riverside 2019), and the surrounding waterways are ephemeral. As such, surface runoff which could result in flooding on or off site is unlikely. Furthermore, the project would not increase the amount of impervious surfaces on site such that the rate or amount of surface runoff would be increased. The project would ultimately replace the 460 existing wind turbine generators (WTGs) from the project site (which would be removed under existing permits) with a maximum of 8 new WTGs, resulting in a reduction in impervious surfaces on site. In addition, the reduction in the number of WTGs would have a positive effect on surface drainage, given that there would be fewer aboveground structures to potentially impede stormwater flows.

While new or altered access roads would be required, these roads would be composed of only pervious materials (e.g., gravel), so impervious surfaces found on the project site would not be expected to increase. Furthermore, 5 miles of the existing 11.9 miles of access roads would no longer be required following decommissioning of the existing WTGs, and as such, these areas would be restored back to a more natural drainage condition. Overall, the use of the project site would not change compared with existing conditions, and the amount of on-site impervious surfaces would not be substantially altered. Therefore, the project would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site and impacts would be less than significant.

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

LESS THAN SIGNIFICANT IMPACT. As previously discussed, construction of the project would not increase the amount of runoff. On the contrary, the project would result in a decrease in runoff due to a substantial reduction in WTGs and reduction of existing access roads by 5 miles. Given that the area is in an arid climate, the local drainages are normally dry. The improved access road may require culverts, which would be built to withstand the expected runoff. Therefore, the project would not create or contribute to runoff water that would exceed the capacity of existing or planned stormwater drainage systems.

In the event of an incidental spill of petroleum products or hazardous materials during construction, the spill would be cleaned up in accordance with the site-specific SWPPP prior to any water being contaminated and conveyed downstream. The site-specific SWPPP would be required and would also prevent water quality degradation associated with sediment disturbance during construction. The SWPPP would include measures for diverting flow around disturbed areas, managing overland flow with temporary and permanent measures such as silt and straw fencing, stabilizing areas of concentrated flow, protecting inlets to culverts and catch basins, and preventing tracking of sediment by vehicles. Site inspections would be conducted on a regular basis and after rainfall events exceeding 0.5 inches to ensure proper function of the stormwater control measures described in the SWPPP. Therefore, the project would not create or contribute to runoff water that would provide substantial additional sources of polluted runoff. Impacts would be less than significant.

iv. Impede or redirect flood flows?

LESS THAN SIGNIFICANT IMPACT. The project site is located on mountainous terrain in an area that has an arid climate, and the project site is not within a designated flood hazard area (County of Riverside 2019). Therefore, the likelihood of a flood in the project area is low. The project would ultimately remove 460 existing WTGs from the project site, replacing them with a maximum of 8 new WTGs, resulting in fewer aboveground structures to potentially impede stormwater flows. While some project access roads within lower elevations may locally traverse flood zones, temporary flooding of access roads would not substantially impede or redirect flood flows. As a result, the project would not substantially impede or redirect flood flows and impacts would be less than significant.

d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

NO IMPACT. The project site is not in a flood hazard, tsunami, or seiche zone. Therefore, there would be no risk for release of pollutants due to project inundation, and no impact would occur.

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

LESS THAN SIGNIFICANT IMPACT. The project would not obstruct or conflict with implementation of a water quality control plan or sustainable groundwater management plan. During construction, the developer would follow guidelines set by these plans to protect water resources, by following the SWPPP provisions, and by adhering to SGMA. The project area does not have a Sustainable Groundwater Plan, but the CVWMP satisfies the requirements of SGMA, as described in the SGMA Bridge Document for the Indio Sub-basin. The Bridge Document outlines the sustainable management criteria from the SGMA, explains why the CVWMP is sufficient, and outlines the CVWMP management strategies under the SGMA criteria (CVWD 2016). The project would not interfere with the groundwater management plans from the CVWMP, as outlined in the SGMA Bridge Document for the Indio Sub-basin, which include water conservation (urban, golf course, and agriculture), increased surface water supplies from outside sources,

substituting surface water for groundwater (source substitution), groundwater recharge, and monitoring and evaluating groundwater levels. CVWMP goals of water conservation, using alternate water sources, and groundwater recharge reduce the potential for future supply deficits.

Although there is an overall annual deficit of 137,000 acre-feet per year for the groundwater basin, anticipated groundwater use for construction and operation would constitute less than 0.05% of this deficit. In addition, the project applicant would implement APM WATER-1 and APM WATER-2 to mitigate potential impacts related to the project's groundwater use. These APMs would ensure that alternate water sources would be procured and that a site-specific Groundwater Monitoring Plan would be prepared for the project that would require monitoring of local water levels and would detail actions to be taken in the event that project groundwater use results in a decline in water levels, including reduction of pumping to stabilized water levels. The monitoring program and potential source substitution meets goals of the CVWMP. Therefore, impacts would be less than significant.

3.11 Land Use and Planning

LAND USE PLANNING

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

3.11.1 Setting

The project site is located on land administered by the Bureau of Land Management (BLM) in Riverside County. The existing Mesa Wind energy facility on the project site consists of 460 wind turbine generators (WTGs), which would be decommissioned. The project site is located at the western edge of the Coachella Valley in the eastern portion of the San Gorgonio Pass. The site is north of Interstate (I) 10, along the foothills to the San Bernardino Mountains. A number of utility corridors are concentrated in this area, and due to the constant prevailing westerly winds through the San Gorgonio Pass, the highest concentration of commercial wind energy development in Riverside County occurs in this area. Local land uses include existing wind farms, off-highway vehicle trails, and protected space including a BLM Area of Critical Environmental Concern (ACEC) and areas that have been designated “wilderness.” Under the Western Coachella Valley Area Plan, the site is designated both Open Space Rural and Open Space Recreation.

Bonnie Bell (located approximately 0.65 miles southeast of the project site) is a residential enclave set among trees along Whitewater Canyon Road, approximately 3,450 feet southeast of the project site. Whitewater (formerly known as West Palm Springs Village and located approximately 1.07 miles southwest of the nearest proposed WTG) is a residential community immediately north of I-10. The Pacific Crest Trail (PCT) is located immediately adjacent to the north and west of the project site. I-10, the major travel corridor in the region that goes through the San Gorgonio Pass, is just south of the project site. State Route (SR) 111 connects I-10 to the City of Palm Springs, which is approximately 11 miles to the southeast of the project site. SR-62 (Twentynine Palms Highway) intersects with I-10 east of Whitewater and travels north to Morongo Valley, passing approximately 3.0 miles to the east of the nearest proposed WTG.

BLM manages the Mesa Wind energy facility lands under the Federal Land Management and Policy Act, which allows for multiple uses, including renewable energy. The existing wind energy facility overlaps with or is near a number of other BLM land allocations or designations, as shown on Figure 3.11-1, Special Designations (BLM 2016).

Areas of Critical Environmental Concern

A portion of the project site overlaps the Whitewater Canyon ACEC. The Whitewater Canyon ACEC management plan was developed in 1982 in recognition of important wildlife and Native American resources. This plan was updated through the Desert Renewable Energy Conservation Plan (DRECP) Land Use Plan Amendment (LUPA). It identifies the primary goal of protecting biological, riparian, scenic and cultural values of Whitewater Canyon, while providing for compatible public uses. It notes that repowering or replacement of existing wind energy facilities will be considered if the repowering development remains within the existing wind energy right-of-way boundary and would reduce the overall environmental impacts of the wind energy facility.

California Desert National Conservation Lands

The project site is adjacent to California Desert National Conservation Lands. The DRECP LUPA identifies California Desert National Conservation Lands, in accordance with the Omnibus Public Land Management Act of 2009, which are nationally significant landscapes within the California Desert Conservation Area (CDCA) with outstanding cultural, ecological, and scientific values.

National Monuments

The Sand to Snow National Monument was proposed by the California Desert Conservation and Recreation Act. This 154,000-acre national monument runs between Joshua Tree National Park and the San Bernardino National Forest and is co-managed by the U.S. Forest Service and BLM. The focal point of the Sand to Snow National Monument is San Gorgonio Mountain, which rises to 11,500 feet from the Sonoran Desert. The whole national monument is diverse, with a range of ecosystems that support threatened and endangered animal species, birds, and relatively undisturbed vegetation. This area is also important because of historical and cultural resources and plentiful opportunities for recreation, including 30 miles of the PCT.

The Santa Rosa and San Jacinto National Monument encompasses about 280,000 acres, including public lands within BLM's CDCA and the San Jacinto Ranger District of the San Bernardino National Forest. The national monument was established to preserve the nationally significant biological, cultural, recreational, geological, educational, and scientific values found in the Santa Rosa and San Jacinto Mountains. Mount San Jacinto, the tallest peak in the national monument, is located 9 miles south of the project site.

National Scenic Trails

A nationally designated scenic trail is one that has been designated as such by the federal government with the consent of any federal, state, local, nonprofit, or private entity having jurisdiction over these lands. These trails are administered by the U.S. Forest Service, the National Park Service, BLM, and a joint venture between the National Park Service and BLM (NPS 2019). The PCT is one of the first trails to be designated a national scenic trail by the National Trails System Act of 1968, as amended (NPS 2019). A National Trail Management Corridor permanently protects the PCT, including side and connecting trails and facilities such as campsites, water sources, and viewpoints. Most of the western part of the project site is included in the PCT National Trail Management Corridor (BLM 2016). The existing Mesa Wind energy facility included installation of a shade structure and a water source for trail users.

Wilderness. The San Gorgonio Wilderness, approximately 2.5 miles north of the project site, was designated by the U.S. Congress in 1964 and is completely encompassed in the Sand to Snow National Monument.

Wild and Scenic Rivers. The Dingell Act (PL 116-9, 2019) designated portions of the Whitewater River as Wild and Scenic Rivers. The nearest designated portions of the Whitewater River (designated as Recreational) are 4,400 feet away from the closest proposed WTG.

Inventoried Lands with Wilderness Characteristics

For lands to be classified as lands with wilderness characteristics, they must possess "sufficient size, naturalness, and outstanding opportunities for either solitude or primitive and unconfined recreation" (BLM 2016). A section of the Whitewater Canyon ACEC that is about 0.5 miles north of the project site includes inventoried lands with wilderness characteristics. The CDCA plan as amended by the DRECP LUPA did not identify these lands to be managed as wilderness.

Regulatory Background

Federal

Federal Land Policy and Management Act

Section 501 (a)(4) of the Federal Land Policy and Management Act of 1976 authorizes BLM to issue right-of-way grants on public lands for systems for generation, transmission, and distribution of electric energy, except that the applicant shall also comply with all applicable requirements of the Federal Energy Regulatory Commission under the Federal Power Act, including Part I thereof (41 Stat. 1063, 16 USC 791a–825r) (PL 102-486, 1992).

California Desert Conservation Area Plan

The CDCA Plan provides a framework for multiple-use resource management in the CDCA, which covers all BLM lands in the California Desert region (BLM 1980). The CDCA Plan established direction on uses and management actions on BLM lands addressing a range of plan elements, including Cultural, Native American, Wildlife, Vegetation, Wilderness, Wild Horse and Burro, Livestock Grazing, Recreation, Motorized-Vehicle Access, Geology, Energy and Mineral Resources, Energy Production and Utility Corridors, and Land Tenure Adjustment. The CDCA Plan also established multiple-use classes and ACECs on BLM lands in the CDCA.

The project site is within the CDCA Plan Utility Corridor “BB,” which permits the expansion of utility facilities for the purpose of telecommunication, electricity, gas, water, and other commodities (BLM 1980). Corridor BB is a 3-mile-wide utility corridor that contains coaxial and fiber-optic communications cable, a pipeline, a 131-kilovolt transmission line, electrical distribution lines, and microwave communication sites.

California Desert Conservation Area Plan Amendment for the Coachella Valley

The CDCA Plan Amendment for the Coachella Valley and Record of Decision (BLM 2002) allows for wind energy facility development in designated areas, which include the project site.

Desert Renewable Energy Conservation Plan Land Use Plan Amendment

In 2016, BLM made a major amendment to the CDCA Plan referred to as the DRECP LUPA. The DRECP LUPA made substantial changes to the CDCA Plan framework and superseded many previous decisions and amendments for BLM lands in the California Desert region. The DRECP LUPA eliminated multiple-use classes and replaced them with conservation and management actions, established new National Conservation Lands, revised and added ACECs, and established other designations on BLM lands for renewable energy and recreation, among other changes. The project is within the DRECP LUPA area.

California Desert National Conservation Lands Ecoregion: Coachella Valley–Whitewater Canyon ACEC

A portion of the project site overlaps the Whitewater Canyon ACEC. The Whitewater Canyon ACEC management plan was developed in 1982 in recognition of important wildlife and Native American resources. This plan’s objective is to prohibit or minimize through mitigation, surface disturbing activities that could conflict with sensitive resources within the ACEC, as well as working with partners who manage surrounding areas to manage the resources of the ACEC and provide access. The management plan notes that repowering or replacement of existing wind energy facilities will be considered if the repowering development remains within the existing wind energy right-of-way boundary and would reduce the overall environmental impacts of the wind energy facility.

State

State regulations associated with land use and planning are not applicable to the proposed project.

Local**Coachella Valley Multiple Species Habitat Conservation Plan**

The Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) is a comprehensive regional plan that addresses the conservation needs of 27 species of native flora and fauna (5 plants, 2 insects, 1 amphibian, 3 reptiles, 11 birds, and 5 mammals) and 27 natural communities occurring throughout the Coachella Valley region of Riverside County, California. These include federally and state-listed species, federal and California species of concern, and species on the California Native Plant Society's sensitive species lists. Also included are species that are designated as sensitive by BLM regardless of their other federal, state, or regional conservation status. Permits for the CVMSHCP were issued by the California Department of Fish and Wildlife (CDFW) on September 9, 2008, and by the U.S. Fish and Wildlife Service (USFWS) on October 1, 2008 (TE 104604-0). The goal of the CVMSHCP is to meet the requirements of the state and federal Endangered Species Acts, while at the same time allowing for the economic growth (land development) within the plan area without significant delay or hidden costs. Under the CVMSHCP, local development mitigation fees are collected from all new development projects occurring in the plan area. The purpose of this fee is to support the assembly of a preserve system for the covered species and natural communities within areas identified as having high conservation value.

County of Riverside General Plan

The primary project facilities (WTGs and substation) are located on BLM-administered land, and only a portion (approximately 1,160 feet) of the access road is located within Riverside County. Therefore, the following information is provided for informational purposes.

Land Use Element. The County General Plan outlines the importance of rural areas to the County of Riverside and the people that choose to live there. Rural areas are important for residents who have chosen to live this expressed lifestyle, for multiple reasons. These reasons include wanting land for agriculture or equestrian uses, or the desire for remote cabins and resorts. Rural areas are not only important for residents, but for wildlife as well, as these areas provide habitat, linkages, and cultural and historical preservation. The General Plan recognizes the importance of these areas and seeks to balance these needs with future growth and urbanization while still ensuring that rural areas have an appropriate level of services and available infrastructure. The Land Use Element (County of Riverside 2020) also discusses the importance of open spaces and how to preserve these in a similar way to preservation of rural areas. There are policies for Open Space–Recreation and Open Space–Rural that both seek to preserve the character of the land as it exists and encourage development that is compatible with the land use.

Western Coachella Valley Area Plan – Land Use Plan. Figure 3 of this plan (County of Riverside 2019) shows the project site location within an area designated as conservation habitat. The conservation habitat designation applies to public and private lands conserved and managed in accordance with adopted conservation plans. Figure 4 in this plan (County of Riverside 2019) shows the project area within the San Geronio Pass Wind Energy Policy area. The plan recognizes that this is an ideal wind energy area but that the presence of wind facilities can be bothersome to residents.

Applicant Proposed Measures

No Applicant Proposed Measures (APMs) are included specifically for land use. However, please refer to Section 3.11.2(b) for other APMs and mitigation measures applicable to the proposed project.

3.11.2 Impact Analysis

a. Would the project physically divide an established community?

NO IMPACT. A community may be divided if a project were to introduce a new physical barrier through that community (e.g., a highway or railroad). The project site is currently the site of an existing wind energy facility, and the areas around the project site consist of vacant desert land or existing wind energy facilities. The project site is located approximately 3,450 feet northwest of the nearest residential site, which is in Bonnie Bell. The proposed project would not introduce any new infrastructure that could create a barrier across an existing community; therefore, no impact would occur.

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. The existing land use designations and zoning for the site would not be modified as a result of project implementation, nor would the overall land use or operation on the site change as compared existing conditions.

The project site is within a region that is covered by several regional plans and policies related to habitat conservation and resource management, including the BLM CDCA Plan and associated plan amendments (DRECP LUPA). The following analysis is performed to determine whether implementation of the project would affect the implementing agencies’ ability to apply these plans as envisioned.

California Desert Conservation Area Plan

The project site is within a CDCA Plan-designated utility corridor (Corridor BB) (BLM 1980). The CDCA Alternative Energy Sources Element allows for maintenance, upgrade, and improvement of existing electric generation facilities with amendments of the rights-of-way. All activities associated with the proposed project would occur within the existing site of the Mesa Wind energy facility. The proposed project would not result in any change to established land uses on the existing site (i.e., current wind facility) or surrounding the project area (e.g., industrial uses).

Desert Renewable Energy Conservation Plan

The CDCA Alternative Energy Sources Element was amended by the DRECP LUPA. As such, a consistency analysis of each DRECP Conservation Management Action (CMA) that applies to the proposed project is included in Table 3.11-1.

Table 3.11-1. Desert Renewable Energy Conservation Plan CMAs Applicable to the Proposed Project

DRECP CMA	CMA Summary	Project Consistency with CMA
Biological Resources		
LUPA-BIO-1:	Conduct a habitat assessment of Focus and BLM Special Status Species’ suitable habitat for all activities and identify and/or delineate the vegetation types, rare alliances, and special features	Consistent. Surveys of the project site were completed in spring 2019. Survey protocols and the Survey Work Plan for Focus and

Table 3.11-1. Desert Renewable Energy Conservation Plan CMA's Applicable to the Proposed Project

DRECP CMA	CMA Summary	Project Consistency with CMA
	(e.g., Aeolian sand transport resources, Joshua tree, microphyll woodlands, carbon sequestration characteristics, seeps, climate refugia) present using the most current information, data sources, and tools (e.g., DRECP land cover mapping, aerial photos, DRECP species models, and reconnaissance site visits) to identify suitable habitat for Focus and BLM Special Status Species...	BLM Special-Status Species were determined in conjunction with BLM.
LUPA-BIO-2:	Designated biologist(s), will conduct, and oversee where appropriate, activity-specific required biological monitoring during pre-construction, construction, and decommissioning to ensure that avoidance and minimization measures are appropriately implemented and are effective. The appropriate required monitoring will be determined during the environmental analysis and BLM approval process. The designated biologist(s) will submit monitoring reports directly to BLM.	Consistent. The proposed project would include monitoring during construction with APM BIO-2 and APM BIO-6 and will comply with this CMA.
LUPA-BIO-4: Seasonal Restrictions	For activities that may impact focus and BLM Special-Status Species, implement all required species-specific seasonal restrictions on pre-construction, construction, operations, and decommissioning activities. Species-specific seasonal restriction dates are described in the applicable CMA's.	Consistent. Through implementation of APM BIO-2, APM BIO-3, APM BIO-5, APM BIO-7, APM BIO-14 and, APM BIO-15, all required species-specific seasonal restrictions would be applied during project construction, operation, and decommissioning.
LUPA-BIO-5: Worker Education	All activities, as determined appropriate on an activity-by-activity basis, will implement a worker education program that meets the approval of the BLM. The program will be carried out during all phases of the project (site mobilization, ground disturbance, grading, construction, operation, closure/ decommissioning or project abandonment, and restoration/reclamation activities). The worker education program will provide interpretation for non-English speaking workers, and provide the same instruction for new workers prior to their working on site. [...]	Consistent. The project applicant would implement a Worker Environmental Awareness Program, consistent with APM BIO-3.
LUPA-BIO-6: Subsidized Predators Standards	Subsidized predator standards, approved by BLM, in coordination with the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW), will be implemented during all appropriate phases of activities, including but not limited to renewable energy activities, to manage predator food subsidies, water subsidies, and breeding sites including the following:	Consistent. The applicant would prepare and implement a raven management plan and submit payment of a one-time fee to support the USFWS Regional Raven Management Program (APM BIO-11).

Table 3.11-1. Desert Renewable Energy Conservation Plan CMA's Applicable to the Proposed Project

DRECP CMA	CMA Summary	Project Consistency with CMA
	Common Raven management actions will be implemented for all activities to address food and water subsidies and roosting and nesting sites specific to the Common Raven. These include identification of monitoring reporting procedures and requirements; strategies for refuse management; as well as design strategies and passive repellent methods to avoid providing perches, nesting sites, and roosting sites for Common Ravens.	
LUPA-BIO-7: Restoration of Areas Disturbed by Construction Activities but Not Converted by Long-Term Disturbance	Where vegetation types or focus or BLM Special-Status habitats may be affected by ground-disturbance and/or vegetation removal during pre-construction, construction, operations, and decommissioning related activities but are not converted by long-term (i.e., more than two years of disturbance) ground disturbance, restore these areas following the standards, approved by BLM authorized officer, following the most recent BLM policies and procedures for the vegetation community or species habitat disturbance as appropriate, summarized below: [...]	Consistent. Much of the proposed ground disturbance would occur within disturbed lands. Where new ground disturbance occurs, the applicant would implement APM BIO-12
LUPA-BIO-8: General Closure and Decommissioning Standards	All activities that are required to close and decommission the site (e.g., renewable energy activities) will specify and implement project-specific closure and decommissioning actions that meet the approval of BLM.	Consistent. The existing 460 WTGs will be removed from the project site under the existing project permits and are not evaluated as part of the proposed project. The applicant has developed a draft decommissioning plan for future decommissioning of the proposed WTGs for BLM review. The decommissioning plan will be finalized when the project nears the end of its permit (year 2053).
LUPA-BIO-9: Water and Wetland Dependent Species Resources	Implement the following general LUPA CMA for water and wetland dependent resources: Implement construction site standard practices to prevent toxic chemicals, hazardous materials, and other fluids from entering vegetation type streams, washes, and tributary networks through water runoff, erosion, and sediment transport by, at a minimum, implementing the following: ... Activity-specific drainage, erosion, and sedimentation control actions, which meet the approval of BLM and the applicable regulatory agencies, will be carried out during all appropriate phases of the approved project. [...]	Consistent. Best management practices (BMPs) would be implemented during project construction to avoid water runoff, erosion, and sediment transport. During construction activities, a site-specific stormwater pollution prevention plan (SWPPP) would be implemented. In addition, a hazardous materials business plan (APM HAZ-1) and a spill prevention, control, and countermeasures (SPCC) plan (APM HAZ-2) would be

Table 3.11-1. Desert Renewable Energy Conservation Plan CMA s Applicable to the Proposed Project

DRECP CMA	CMA Summary	Project Consistency with CMA
		implemented during operations and management (O&M) activities.
LUPA-BIO-10: Standard Practices for Weed Management	Consistent with BLM state and national policies and guidance, integrated weed management actions, will be carried out during all phases of activities, as appropriate, and at a minimum will include the following: [...]	Consistent. The project applicant would develop and implement an integrated weed management plan, to be reviewed and approved by BLM (APM BIO-8).
LUPA-BIO-12: Noise	<p>For activities that may impact focus or BLM Special-Status Species, implement the following LUPA CMA for noise:</p> <p>To the extent feasible, and determined necessary by BLM to protect Focus and BLM sensitive wildlife species, locate stationary noise sources that exceed background ambient noise levels away from known or likely locations of focus and BLM sensitive wildlife species and their suitable habitat.</p> <p>Implement engineering controls on stationary equipment, buildings, and work areas including sound-insulation and noise enclosures to reduce the average noise level, if the activity will contribute to noise levels above existing background ambient levels.</p> <p>Use noise controls on standard construction equipment including mufflers to reduce noise</p>	Consistent. The project applicant would include noise controls on standard construction and stationary permanent equipment (during operations) to minimize impacts to off-site habitat (APM BIO-5).
LUPA-BIO-13: General Siting and Design	<p>Implement the following CMA for project siting and design:</p> <p>To the maximum extent practicable site and design projects to avoid impacts to vegetation types, unique plant assemblages, climate refugia as well as occupied habitat and suitable habitat for Focus and BLM Special-Status Species (<i>see</i> “avoid to the maximum extent practicable” in Glossary of Terms).</p>	Consistent. The proposed project has been designed to be developed within the existing Mesa Wind energy facility, limiting new ground disturbance to the extent feasible. Additionally, impacts would be avoided and minimized through implementation of APM BIO-2, APM BIO-3, and APM BIO-4.
LUPA-BIO-14: General Standard Practices	<p>Implement the following general standard practices to protect Focus and BLM Special-Status Species:</p> <p>Feeding of wildlife, leaving of food or trash as an attractive nuisance to wildlife, collection of native plants, or harassing of wildlife on a site is prohibited.</p> <p>Any wildlife encountered during the course of an activity, including construction, operation, and decommissioning will be allowed to leave the area unharmed.</p> <p>Domestic pets are prohibited on sites. This prohibition does not apply to the use of domestic</p>	Consistent. The applicant must implement APM BIO-5 during construction, operation, and decommissioning of the project to avoid or minimize impacts to wildlife.

Table 3.11-1. Desert Renewable Energy Conservation Plan CMA's Applicable to the Proposed Project

DRECP CMA	CMA Summary	Project Consistency with CMA
	<p>animals (e.g., dogs) that may be used to aid in official and approved monitoring procedures/protocols, or service animals (dogs) under Title II and Title III of the American with Disabilities Act.</p> <p>All construction materials will be visually checked for the presence of wildlife prior to their movement or use. Any wildlife encountered during the course of these inspections will be allowed to leave the construction area unharmed.</p> <p>All steep-walled trenches or excavations used during the project will be covered, except when being actively used, to prevent entrapment of wildlife. If trenches cannot be covered, they will be constructed with escape ramps, following up-to-date design standards to facilitate and allow wildlife to exit, or wildlife exclusion fencing will be installed around the trench(s) or excavation(s). Open trenches or other excavations will be inspected by a designated biologist immediately before backfilling, excavation, or other earthwork.</p> <p>Minimize natural vegetation removal through implementation of crush and drive or cut or mow vegetation rather than removing entirely.</p>	
LUPA-BIO-15:	Use state-of-the-art construction and installation techniques, appropriate for the specific activity/project and site that minimize new site disturbance, soil erosion and deposition, soil compaction, disturbance to topography, and removal of vegetation.	Consistent. The proposed project has been designed to be developed within the existing Mesa Wind energy facility, limiting new ground disturbance to the extent feasible. Additionally, impacts would be avoided and minimized through implementation of APM BIO-2 through APM BIO-4.
LUPA-BIO-16: Activity-Specific Bird and Bat CMA's	For activities that may impact focus and BLM sensitive birds, protected by the Endangered Species Act (ESA) and/or Migratory Bird Treaty Act of 1918, and bat species, implement appropriate measures as per the most up-to-date BLM state and national policy and guidance, and data on birds and bats, including but not limited to activity specific plans and actions. The goal of the activity- specific bird and bat actions is to avoid and minimize direct mortality of birds and bats from the construction, operation, maintenance, and decommissioning of the specific activities.	Consistent. The applicant would prepare and implement a BBCS in coordination with BLM, USFWS, and CDFW (APM BIO-14). Post-construction mortality surveys would also be conducted (APM BIO-13). In addition, the applicant would coordinate with USFWS to determine specific measures to reduce potential impacts to golden eagles (APM BIO-15).
LUPA-BIO-17:	For activities that may result in mortality to Focus and BLM Special-Status bird and bat species, a Bird and	Consistent. The applicant would prepare and implement a BBCS in

Table 3.11-1. Desert Renewable Energy Conservation Plan CMA's Applicable to the Proposed Project

DRECP CMA	CMA Summary	Project Consistency with CMA
	Bat Conservation Strategy (BBCS) will be prepared with the goal of assessing operational impacts to bird and bat species and incorporating methods to reduce documented mortality. The BBCS actions for impacts to birds and bats during these activities will be determined by the activity-specific bird and bat operational actions. The strategy shall be approved by BLM in coordination with USFWS, and CDFW as appropriate, and may include, but is not limited to:	coordination with BLM, USFWS, and CDFW (APM BIO-14). Mitigation Measure (MM) BIO-2 (Bird and Bat Conservation Strategy Standards) would mitigate potential mortality from project operations.
LUPA-BIO-RIPWET-3: BLM Special Status Riparian Bird Species	For activities that occur within 0.25 mile [of] a riparian or wetland vegetation type and may impact BLM Special-Status riparian and wetland birds species conduct a pre-construction/activity nesting bird survey for BLM Special-Status riparian and wetland birds according to agency-approved protocols.	Consistent. The proposed access road improvements would impact riparian habitat designated as a sensitive natural community, which would be avoided or minimized through implementation of APM BIO-2, APM BIO-3, APM BIO-4, APM BIO-8, and APM BIO-12. In addition, implementation of MM BIO-3 (Revegetation Standards) and MM BIO-4 (CVMSHCP Consistency) would reduce potential impacts to less than significant.
LUPA-BIO-PLANT-1: Plant Species (PLANT)	Conduct properly timed protocol surveys in accordance with the BLM's most current (at time of activity) survey protocols for plant Focus and BLM Special Status Species.	Consistent. The required protocol surveys were performed in spring of 2019. Survey protocols and the survey work plan were determined in conjunction with BLM.
LUPA-BIO-PLANT-2	Implement an avoidance setback of 0.25 mile for all Focus and BLM Special Status Species occurrences. Setbacks will be placed strategically adjacent to occurrences to protect ecological processes necessary to support the plant Species (see Appendix Q, Baseline Biology Report, in the Proposed LUPA and Final EIS [2015], or the most recent data and modeling).	Consistent. As discussed in Section 3.4, Biological Resources, with incorporation of APMs and implementation of MM BIO-1 (Habitat Compensation) impacts to special-status plant species would be less than significant.
LUPA-BIO-PLANT-3: Suitable Habitat	Impacts to suitable habitat for Focus and BLM Special Status plant species should be avoided to the extent feasible, and are limited [capped] to a maximum of 1% of their suitable habitat throughout the entire LUPA Decision Area. The baseline condition for measuring suitable habitat is the DRECP modeled suitable habitat for these species utilized in the EIS analysis (2014 and 2015), or the most recent suitable habitat modeling.	Consistent. See response for LUPA-BIO-PLANT-2 in this table.

Table 3.11-1. Desert Renewable Energy Conservation Plan CMA's Applicable to the Proposed Project

DRECP CMA	CMA Summary	Project Consistency with CMA
	For those plants with Species Specific DFA Suitable Habitat Impact Caps listed in Table 23, those caps apply in the DFAs only. Refer to CMA DFA-PLANT-1.	
LUPA-BIO-IFS-3	All culverts for access roads or other barriers will be designed to allow unrestricted access by desert tortoises and will be large enough that desert tortoises are unlikely to use them as shelter sites (e.g., 36 inches in diameter or larger). Desert tortoise exclusion fencing may be utilized to direct tortoise use of culverts and other passages.	Consistent. The project applicant must implement all protection measures detailed in APM BIO-6 to ensure protection of desert tortoise during project implementation.
LUPA-BIO-IFS-4:	<p>In areas where protocol and clearance surveys are required (see Appendix D), prior to construction or commencement of any long- term activity that is likely to adversely affect desert tortoises, desert tortoise exclusion fencing shall be installed around the perimeter of the activity footprint in accordance with the Desert Tortoise Field Manual (USFWS 2009) or most up-to-date USFWS protocol. Additionally, short-term desert tortoise exclusion fencing will be installed around short-term construction and/or activity areas (e.g., staging areas, storage yards, excavations, and linear facilities), as appropriate, per the Desert Tortoise Field Manual (USFWS 2009) or most up-to-date USFWS protocol.</p> <p>Modification or elimination of the above requirement may also be approved if the activity design will allow retention of desert tortoise habitat within the footprint. If such a modification is approved, modified protective measures may be required to minimize impacts to desert tortoises that may reside within the activity area.</p>	Consistent. Project-specific protocol surveys were previously conducted for desert tortoise. The project applicant must implement all protection measures detailed in APM BIO-6 to ensure protection of desert tortoise during project implementation.
LUPA-BIO-IFS-5:	<p>Following the clearance surveys within sites that are fenced with long-term desert tortoise exclusion fencing a designated biologist will monitor initial clearing and grading activities to ensure that desert tortoises missed during the initial clearance survey are moved from harm's way.</p> <p>A designated biologist will inspect construction pipes, culverts, or similar structures: (a) with a diameter greater than 3 inches, (b) stored for one or more nights, (c) less than 8 inches aboveground and (d) within desert tortoise habitat (such as, outside the long- term fenced area), before the materials are moved, buried, or capped.</p> <p>As an alternative, such materials shall be capped before storing outside the fenced area or placing on pipe racks. Pipes stored within the long-term fenced</p>	Consistent. Project-specific protocol surveys were previously conducted for desert tortoise. The project applicant must implement all protection measures detailed in APM BIO-6 to ensure protection of desert tortoise during project implementation.

Table 3.11-1. Desert Renewable Energy Conservation Plan CMAAs Applicable to the Proposed Project

DRECP CMA	CMA Summary	Project Consistency with CMA
	area after completing desert tortoise clearance surveys will not require inspection.	
LUPA-BIO-IFS-8:	Inspect the ground under the vehicle for the presence of desert tortoise any time a vehicle or construction equipment is parked in desert tortoise habitat outside of areas fenced with desert tortoise exclusion fencing. If a desert tortoise is seen, it may move on its own. If it does not move within 15 minutes, a designated biologist may remove and relocate the animal to a safe location.	Consistent. The project applicant must implement all protection measures detailed in APM BIO-6, including inspection beneath parked vehicles, to ensure protection of desert tortoise during project implementation.
LUPA-BIO-IFS-9:	Vehicular traffic will not exceed 15 mph within the areas not cleared by protocol-level surveys where desert tortoise may be impacted.	Consistent. A 15 mph maximum speed limit would be enforced on site through implementation of APM BIO-5.
LUPA-BIO-IFS-12: Burrowing Owl	If burrowing owls are present, a designated biologist will conduct appropriate activity-specific biological monitoring to ensure avoidance of occupied burrows and establishment of the 656 feet (200 meter) setback to sufficiently minimize disturbance during the nesting period on all activity sites, when practical.	Consistent. A BBCS must be developed and implemented consistent with APM BIO-14. The BBCS would include methodology for monitoring, avoidance, and passive relocation of burrowing owls. In addition, the applicant must prepare and implement a wildlife relocation plan, consistent with APM BIO-1.
LUPA-BIO-IFS-13:	If burrows cannot be avoided on-site, passive burrow exclusion by a designated biologist through the use of one-way doors will occur according to the specifications in Appendix D, or the most up-to-date agency BLM or CDFW specifications. Before exclusion, there must be verification that burrows are empty as specified in Appendix H, or the most up-to-date BLM or CDFW protocols. Confirmation that the burrow is not currently supporting nesting or fledgling activities is required prior to any burrow exclusions or excavations.	Consistent. A BBCS must be developed and implemented consistent with APM BIO-14. The BBCS would include methodology for monitoring, avoidance, and passive relocation of burrowing owls. In addition, the applicant must prepare and implement a wildlife relocation plan, consistent with APM BIO-1.
LUPA-BIO-IFS-25	Cumulative loss of foraging habitat within a 1- to 4-mile radius around active or alternative eagle nests (as identified or defined in the most recent USFWS guidance and/or policy) will be limited to less than 20%. See CONS-BIO-IFS 5 for the requirement in Conservation Lands.	Consistent. An existing wind energy facility is currently operational within the project site. Approximately 97.8 acres of new ground disturbance is proposed, adjacent to existing disturbed land, for development of the proposed project. The majority of the undisturbed foraging habitat surrounding the project site is

Table 3.11-1. Desert Renewable Energy Conservation Plan CMA s Applicable to the Proposed Project

DRECP CMA	CMA Summary	Project Consistency with CMA
		within protected lands where new disturbance would be minimal.
LUPA-BIO-IFS-26:	For activities that impact golden eagles, applicants will conduct a risk assessment per the applicable USFWS guidance (e.g. the USFWS Eagle Conservation Plan Guidance) using best available information as well as the data collected in the pre-project golden eagle surveys.	Consistent. The applicant performed eagle surveys and conducted a risk assessment that has been submitted to USFWS.
LUPA-BIO-IFS-27	If a permit for golden eagle take is determined to be necessary, an application will be submitted to the USFWS in order to pursue a take permit.	Consistent. Through implementation of CMA-BIO-15, the applicant would coordinate with USFWS to establish procedures to reduce effects to golden eagles, which may include obtaining a golden eagle take authorization under the federal Bald and Golden Eagle Protection Act.
LUPA-BIO-IFS-28:	In order to evaluate the potential risk to golden eagles, the following activities are required to conduct 2 years of pre-project golden eagle surveys in accordance with USFWS Eagle Conservation Plan Guidance as follows: Wind projects and solar projects involving a power tower	Consistent. The applicant performed golden eagle surveys in 2012–2013 and 2015–2016, as summarized in Appendix C-1.
LUPA-BIO-IFS-30	For activities where ongoing take of golden eagles is anticipated, develop advanced conservation practices per USFWS Eagle Conservation Plan Guidance	Consistent. Through implementation of CMA-BIO-15, the applicant would coordinate with USFWS to establish procedures to reduce effects to golden eagles, which may include obtaining a golden eagle take authorization under the federal Bald and Golden Eagle Protection Act.
LUPA-BIO-IFS-31	As determined necessary by BLM in coordination with USFWS, and CDFW as appropriate, for activities/projects that are likely to impact golden eagles implement site-specific golden eagle mortality monitoring in support of the pre-construction, pre-activity risk assessment surveys.	Consistent. Through implementation of CMA-BIO-15, the applicant would coordinate with USFWS to establish procedures to reduce effects to golden eagles.

Table 3.11-1. Desert Renewable Energy Conservation Plan CMA's Applicable to the Proposed Project

DRECP CMA	CMA Summary	Project Consistency with CMA
LUPA-BIO-COMP-1: Compensation	Impacts to biological resources, identified and analyzed in the activity specific environmental document, from activities in the LUPA Decision Area will be compensated using the standard biological resources compensation ratio, except for the biological resources and specific geographic locations listed as compensation ratio exceptions, specifics in CMA's LUPA-BIO-COMP-2 through -4, and previously listed CMA's. Compensation acreage requirements may be fulfilled through non-acquisition (i.e., restoration and enhancement), land acquisition (i.e., preserve), or a combination of these options, depending on the activity specifics and BLM approval/ authorization. [...]	Consistent. Implementation of MM BIO-1 would require habitat compensation in the form of land acquisition to mitigate impacts to desert tortoise habitat.
LUPA-BIO-COMP-2: Birds and Bats	The compensation for the mortality impacts to bird and bat Focus and BLM Special-Status Species from activities would be determined based on monitoring of bird and bat mortality and a fee re-assessed every 5 years to fund compensatory mitigation. Initial compensation fee for bird and bat mortality impacts would be based on pre-project monitoring of bird use and estimated bird and bat species mortality from the activity. [...]	Consistent. A preliminary BBCS (pBBCS) was prepared according to the USFWS Land-Based Wind Energy Guidelines (USFWS 2012), consistent with APM BIO-14. A substantial increase in avian fatalities above the existing Mesa Wind energy facility is not anticipated because the proposed project is a repower project with a nominal increase in rotor swept area sited within a region of high-intensity wind energy development. MM BIO-2 would mitigate potential mortality from project operations.
LUPA-BIO-COMP-3: Golden Eagle	Activities, BLM and third-party initiated, will provide specific golden eagle compensation in accordance with the most up to date BLM's policies, and USFWS Eagle Conservation Plan Guidance.	Consistent. Through implementation of CMA-BIO-15, the applicant would coordinate with USFWS to establish procedures to reduce effects to golden eagles.
LUPA-BIO-COMP-4: Golden Eagle	Third-party applicant/activity proponents are required to contribute to a DRECP-wide golden eagle monitoring program if the activity/ projects(s) has been determined, through the environmental analysis, to likely impact golden eagles.	Consistent. Through implementation of CMA-BIO-15, the applicant would coordinate with USFWS to establish procedures to reduce effects to golden eagles.
Air Resources		
LUPA-AIR-1:	All activities must meet the following requirements: Applicable National Ambient Air Quality Standards (Section 109)	Consistent. As discussed in Section 3.3, Air Quality, the proposed project would not exceed National

Table 3.11-1. Desert Renewable Energy Conservation Plan CMAAs Applicable to the Proposed Project

DRECP CMA	CMA Summary	Project Consistency with CMA
	State Implementation Plans (Section 110) ...	or California Ambient Air Quality Standards (NAAQS or CAAQS) with incorporation of APM AQ-1 (Fugitive Dust Control Plan) and APM AQ-2 (On-Site Off-Road Equipment Emissions Control). As such, the proposed project would not conflict with the applicable State Implementation Plans for CO and PM ₁₀ .
LUPA-AIR-2:	Because project authorizations are a federal undertaking, air quality standards for fugitive dust may not exceed local standards and requirements.	Consistent. As discussed in Section 3.3, the proposed project would not exceed the NAAQS or CAAQS with incorporation of APM AQ-1 and APM AQ-2.
LUPA-AIR-4:	Because fugitive dust is the number one source of PM ₁₀ and PM _{2.5} pollution in the Mojave and Sonoran Deserts, fugitive dust impacts to air quality must be analyzed for all activities/projects requiring an Environmental Impact Statement and Environmental Assessment.	Consistent. As discussed in Section 3.3, the proposed project would not exceed the NAAQS or CAAQS for PM ₁₀ or PM _{2.5} with incorporation of APM AQ-1 and APM AQ-2.
LUPA-AIR-5:	A fugitive Dust Control Plan will be developed for all projects where the National Environmental Policy Act (NEPA) analysis shows an impact on air quality from fugitive dust.	Consistent. As discussed in Section 3.3, the proposed project would not exceed the NAAQS or CAAQS for PM ₁₀ or PM _{2.5} with incorporation of APM AQ-1 and APM AQ-2.
Cultural Resources and Tribal Interests		
LUPA-CUL-3:	Identify places of traditional cultural and religious importance to federally recognized tribes and maintain access to these locations for traditional use.	Consistent. Native American tribes identified the project site within a Traditional Use Area but did not identify any specific Tribal Cultural Resources (TCRs) that could be affected by project implementation. In addition, the project includes repowering of an existing wind energy facility and would not impact access to surrounding areas.
LUPA-CUL-4:	Design activities to minimize impacts on cultural resources including places of traditional cultural and religious importance to federally recognized tribes.	Consistent. Native American tribes identified the project site within a Traditional Use Area but did not identify any specific TCRs that could be affected by project implementation. Nevertheless,

Table 3.11-1. Desert Renewable Energy Conservation Plan CMA s Applicable to the Proposed Project

DRECP CMA	CMA Summary	Project Consistency with CMA
LUPA-CUL-8	Conduct regular contact and consultation with federally recognized Tribes and individuals, consistent with statute, regulation and policy.	<p>the inadvertent impacts to subsurface cultural resources and TCRs would be minimized through incorporation of APM CUL-1 (Archaeological WEAP), APM CUL-2 (Archaeological Monitoring, APM CUL-3 (Archaeological Resource Procedures), APM CUL-4 (Treatment of Human Remains), and APM TCR-1 (Tribal Monitoring).</p> <p>Consistent. Pursuant to Section 106 of the National Historical Preservation Act (NHPA), BLM conducted Tribal consultation, which was included in the NEPA documentation. In addition, pursuant to Assembly Bill 52, CDFW initiated formal consultation with Native American Tribes.</p>
Lands and Realty		
LUPA-LANDS-4	Nonfederal lands within the boundaries of BLM LUPA land use allocations are not affected by the LUPA.	<p>Consistent. The proposed project would primarily encompass federal lands, but a small portion of the unnamed access road would be located on easements across private lands. This CMA will apply to those portions of the project.</p>
Paleontology		
LUPA-PALEO-3	Ensure proper data recovery of significant paleontological resources where adverse impacts cannot be avoided or otherwise mitigated.	<p>Consistent. As discussed in Section 3.7, Geology and Soils, no known paleontological resources have been identified within the project site or a 1-mile buffer. To ensure proper handling and processing of subsurface paleontological resources, APM PAL-1 (WEAP, paleontological monitor, and mitigation and monitoring plan) must be implemented during construction activities.</p>

Table 3.11-1. Desert Renewable Energy Conservation Plan CMAs Applicable to the Proposed Project

DRECP CMA	CMA Summary	Project Consistency with CMA
Recreation		
LUPA-REC-6	Limit signage to that necessary for recreation facility/area identification, interpretation, education, and safety/regulatory enforcement.	Consistent. The only new signage that may be required is on the Pacific Crest Trail (PCT) near the project site. Temporary informational signs would be posted and the PCT consistent with APM REC-1.
Soils and Water General		
LUPA-SW-1:	Stipulations or conditions of approval for any activity will be imposed that provide appropriate protective measures to protect the quantity and quality of all water resources (including ephemeral, intermittent, and perennial water bodies) and any associated riparian habitat (see biological CMAs for specific riparian habitat CMAs). The water resources to which this CMA applies will be identified through the activity-specific NEPA analysis.	Consistent. The proposed access road improvements would impact riparian habitat designated as a sensitive natural community, which would be avoided or minimized through implementation of APM BIO-2, APM BIO-3, APM BIO-4, APM BIO-8, and APM BIO-12. In addition, implementation of MM BIO-3 and MM BIO-4 would reduce potential impacts to less than significant.
LUPA-SW-6:	In addition to the applicable required governmental safeguards, third party activities will implement up-to-date standard industry construction practices to prevent toxic substances from leaching into the soil.	Consistent. BMPs would be implemented during project construction to avoid water runoff, erosion, and sediment transport. During construction activities, a site-specific SWPPP would be implemented. In addition, a Hazardous Materials Business Plan (APM HAZ-1) and a Spill Prevention, Control, and Countermeasure Plan (APM HAZ-2) would be implemented during O&M activities.
LUPA-SW-7:	Prepare an emergency response plan, approved by the BLM contaminant remediation specialist that ensures rapid response in the event of spills of toxic substances over soils.	Consistent. BMPs would be implemented during project construction to avoid water runoff, erosion, and sediment transport. During construction activities, a site-specific SWPPP would be implemented. In addition, a hazardous materials business plan (APM HAZ-1) and SPCC Plan (APM HAZ-2) would be implemented during O&M activities.

Table 3.11-1. Desert Renewable Energy Conservation Plan CMAAs Applicable to the Proposed Project

DRECP CMA	CMA Summary	Project Consistency with CMA
LUPA-SW-8:	As determined necessary on an activity specific basis, prepare a site plan specific to major soil types present ($\geq 5\%$ of footprint or laydown surfaces) in Wind Erodibility Groups 1 and 2 and in Hydrology Soil Class D as defined by the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service to minimize water and air erosion from disturbed soils on activity sites.	Consistent. Through implementation of APM GEO-1, the proposed project would be designed and constructed in conformance with recommendations specified in a site-specific geotechnical feasibility study.
LUPA-SW-11:	Where possible, side casting shall be avoided where road construction requires cut-and-fill procedures.	Consistent. Through implementation of APM GEO-1, the proposed project would be designed and constructed in conformance with recommendations specified in a site-specific geotechnical feasibility study.
LUPA-SW-17	An activity's groundwater extraction shall not contribute to exceeding the estimated perennial yield for the basin in which the extraction is taking place.	Consistent. Through implementation of APM WATER-2, the applicant must prepare and implement a Groundwater Monitoring Plan to ensure that drawdown does not affect nearby water users.
LUPA-SW-30	Activities shall comply with local requirements for any long-term or short-term domestic water use and wastewater treatment.	Consistent. Through implementation of APM WATER-1 (Water Supply Commitment Letter) and APM WATER-2 (Groundwater Monitoring Plan),
LUPA-SW-31:	The siting, construction, operation, maintenance, remediation, and abandonment of all wells shall conform to specifications contained in the California Department of Water Resources Bulletins #74-81 and #74-90 and their updates.	Consistent. The proposed project would utilize an existing on-site well for project operations. No new wells would be constructed, and no existing wells would be abandoned.
Visual Resources Management		
LUPA-VRM-2:	Ensure that activities within each of the VRM Class polygons meets the VRM objectives described above, as measured through a visual contrast rating process.	Consistent. The NEPA Environmental Assessment prepared for the Mesa Wind Repower Project (BLM 2020) concluded that the project would be consistent with the VRM Class IV and Class II management objectives. In addition, impacts to visual resources, analyzed in Section 3.1, Aesthetics, would be less than significant with

Table 3.11-1. Desert Renewable Energy Conservation Plan CMA s Applicable to the Proposed Project

DRECP CMA	CMA Summary	Project Consistency with CMA
		incorporation of APM BIO-5 (Wildlife Protection [Minimization of Lighting Impacts]).
Compensation		
LUPA-COMP-1	For third party actions, compensation activities must be initiated or completed within 12 months from the time the resource impact occurs (e.g. ground disturbance, habitat removal, route obliteration, etc., for construction activities; wildlife mortality, visual impacts, etc., due to operations).	Consistent. Implementation of MM BIO-1 would require habitat compensation in the form of land acquisition to mitigation impacts to desert tortoise habitat.
Transmission CMA s		
LUPA-TRANS-CUL-1	<p>For transmission (and renewable energy) activities, require the applicant to pay all appropriate costs associated with the following processes, through the appropriate BLM funding mechanism:</p> <p>All appropriate costs associated with the BLM’s analysis of the DRECP geodatabase and other sources for cultural resources sensitivity.</p> <p>All appropriate costs associated with preliminary sensitivity analysis.</p> <p>All appropriate costs associated with the Section 106 process including the identification and defining of cultural resources. These costs may also include logistical, travel, and other support costs incurred by tribes in the consultation process.</p> <p>All appropriate costs associated with updating the DRECP cultural resources geodatabase with project specific results.</p>	Consistent. The applicant has an existing cost-recovery agreement with BLM that meets the requirements of this CMA.
LUPA-TRANS-CUL-2	A compensatory mitigation fee will be required within the LUPA Decision Area to address cumulative and some indirect adverse effects to historic properties. The mitigation fee will be calculated in a manner that is commensurate to the size and regional impacts of the project.	Consistent. Government-to-government consultation will occur between BLM and interested Tribes, pursuant to Section 106 of the NHPA. The applicant will pay a compensatory mitigation fee if determined necessary as a result of consultation efforts.

Table 3.11-1. Desert Renewable Energy Conservation Plan CMA's Applicable to the Proposed Project

DRECP CMA	CMA Summary	Project Consistency with CMA
LUPA-TRANS-CUL-3	For transmission (and renewable energy) activities, the management fee rate will be determined through the NHPA programmatic Section 106 consultation process that will be completed as part of the DRECP land use plan amendment.	Consistent. BLM conducted government-to-government consultation with interested Tribes, pursuant to Section 106 of the NHPA. The applicant will pay a compensatory mitigation fee if determined necessary as a result of consultation efforts.
LUPA-TRANS-CUL-4	For transmission (and renewable energy) activities, demonstrate that results of cultural resources sensitivity, based on the DRECP geodatabase, and other sources, are used as part of the initial planning pre-application process and to select of specific footprints for further consideration.	Consistent. The proposed project has been designed to be developed within the existing Mesa Wind energy facility, limiting new ground disturbance to the extent feasible. In addition, a cultural resources assessment was conducted for the project site, the results of which are discussed in Section 3.5, Cultural Resources.
LUPA-TRANS-CUL-5	For transmission (and renewable energy) activities, provide a statistically significant sample survey as part of the pre-application process, unless the BLM determines the DRECP geodatabase and other sources are adequate to assess cultural resources sensitivity of specific footprints.	Consistent. A BLM Class III archaeological survey has been completed in the project area and access route, the results of which are summarized in Section 3.5.
LUPA-TRANS-CUL-6	For transmission (and renewable energy) activities, provide justification in the application why the project considerations merit moving forward if the specific footprint lies within an area identified or forecast as sensitive for cultural resources by the BLM.	Consistent. The project site has been previously disturbed for construction and operation of an existing wind energy facility. Nevertheless, inadvertent impacts to subsurface cultural resources would be minimized through implementation of APM CUL-1, APM CUL-2, APM CUL-3 (Procedures upon Encountering Archaeological Resources), and APM CUL-4 (Treatment of Human Remains).
LUPA-TRANS-CUL-7	For transmission (and renewable energy) activities, complete the NHPA Section 106 Process as specified in 36 Code of Federal Regulations (CFR) Part 800, or via an alternate procedure, allowed for under 36 CFR Part 800.14 prior to issuing a record of decision or right-of-way (ROW) grant on any utility-scale renewable energy or transmission project.	Consistent. BLM conducted government-to-government consultation with interested Tribes, pursuant to Section 106 of the NHPA.

Table 3.11-1. Desert Renewable Energy Conservation Plan CMAAs Applicable to the Proposed Project

DRECP CMA	CMA Summary	Project Consistency with CMA
Ecological and Cultural Conservation		
CONS-BIO-PLANT-1	Occurrences of plant Focus and BLM Special Status Species, including in designated transmission corridors, will be avoided, to the maximum extent practicable) [...]	Consistent. Surveys of the project site were completed in spring 2019. Based on vegetation communities and habitat encountered within the project site, the applicant must comply with APM BIO-1 through APM BIO-15 to minimize potential impacts to special-status species during project implementation.
CONS-BIO-IFS-1	All activities, except transmission, that will result in the long-term removal of habitat supporting an adult desert tortoise density (i.e., individuals 160mm or more) of more than 5 per square mile or more than 35 individuals total are prohibited [...]	Consistent. Three adult desert tortoises were encountered during the desert tortoise surveys conducted in 2019, which encompassed the 400-acre project site.
CONS-BIO-IFS-5	The cumulative loss of foraging habitat within a 4-mile radius around active or alternative golden eagle nests will be limited to less than 10% in BLM LUPA conservation designations.	Consistent. The project is proposed on disturbed land, currently developed as a wind energy facility. As such, new ground disturbance and consequent loss of foraging habitat would be minimal. The majority of the foraging habitat surrounding the project site is on protected lands, so the loss would not reach 10%.
CONS-REC-1	In California Desert National Conservation Lands and ACECs that overlap with SRMAs and ERMAs, manage in accordance with the Special Unit Management Plans for the SRMA/ERMA and the applicable ecological and cultural conservation unit. [...]	Consistent. The proposed project is consistent with the management plans for the ACEC and SRMAs that overlap the existing ROW as discussed in the NEPA Environmental Assessment (BLM 2020).
CONS-REC-3	Design public access features (access roads, roadside stops, trailheads, interpretive sites, etc.) to support or enhance conservation values for California Desert National Conservation Land units and ACECs.	Consistent. The proposed project does not include public access features. The only new signage that may be required is on the PCT near the project site. Temporary informational signs would be posted on the PCT consistent with APM REC-1.

Table 3.11-1. Desert Renewable Energy Conservation Plan CMA's Applicable to the Proposed Project

DRECP CMA	CMA Summary	Project Consistency with CMA
Areas of Critical Environmental Concern		
ACEC-DIST-1	Development in ACECs is limited by specified ground disturbance caps which are the total ground disturbance (existing [past and present] plus future). The specific ACEC ground disturbance caps are delineated in each of the individual ACEC Special Unit Management Plans (Appendix B). The ground disturbance caps will be used, managed and implemented following the methodology for California Desert National Conservation Lands and ACECs identified in Section II.2 and repeated in CMA's NLCS-DIST-2, and ACEC-DIST-2.	Consistent. The Whitewater Canyon ACEC is below the disturbance cap. Approximately 55 acres (per BLM SDARTT data) of the existing wind energy facility is within the ACEC. The proposed project has been designed to minimize disturbance in the ACEC and even considering minimal new ground disturbance, the ACEC would remain below the disturbance cap.
ACEC-DIST-2	Specifically, the ground disturbance caps would be implemented as a limitation and objective using the following process: [...]	Consistent. The Whitewater Canyon ACEC is below the disturbance cap. Approximately 55 acres (per BLM SDARTT data) of the existing wind energy facility is within the ACEC. The proposed project has been designed to minimize disturbance in the ACEC and even considering minimal new ground disturbance, the ACEC would remain below the disturbance cap.
ACEC-LANDS-1	Renewable energy activities are not allowed. Transmission is allowed. Re-powering of an existing wind facility is allowed if the re-power project remains within the existing approved wind energy ROW and reduces environmental impacts.	Consistent. The proposed project has been designed to be developed within the existing Mesa Wind energy facility, limiting new ground disturbance to the extent feasible.
Special Recreation Management Areas		
SRMA-LANDS-1	Renewable energy development is not an allowable use in SRMAs due to the incompatibility with the values of the SRMA. ... Re-powering of an existing wind facility is allowed if the re-power project remains within the existing approved ROW and reduces environmental and recreation impacts.	Consistent. The proposed project has been designed to be developed within the existing Mesa Wind energy facility, limiting new ground disturbance to the extent feasible.
SRMA-REC-1	Manage SRMAs for their targeted recreation activities, experiences and benefits. Maintain (and where possible enhance) the recreation setting characteristics — physical components of remoteness, naturalness and facilities; social components of contact, group size and evidence of	Consistent. The proposed project has been designed to be developed within the existing Mesa Wind energy facility, limiting disturbance in the SRMA. As such, the proposed project would not

Table 3.11-1. Desert Renewable Energy Conservation Plan CMAAs Applicable to the Proposed Project

DRECP CMA	CMA Summary	Project Consistency with CMA
	use; and operational components of access, visitor services and management controls.	affect the management of the SRMA.
SRMA-CTTM-1	Refer to the individual SRMA Special Unit Management Plans (Appendix C) for SRMA/Recreation Management Zone specific objectives, management actions, and allowable uses. Protect SRMAs for their unique/special recreation values. Manage roads/primitive roads/trails consistent with SRMA objectives and as designated in Transportation and Travel Management Plan/RMPs.	Consistent. The proposed project has been designed to be developed within the existing Mesa Wind energy facility. The project would not affect the management of the PCT.
Biological Resources		
LUPA-BIO-BAT-2	Mines will be assumed to be occupied bat roosts, unless appropriate surveys for bat use have been conducted during all seasons (including maternity, lekking or swarming, and winter use).	Consistent. A vertical excavation mine is located off site about 0.5 miles northeast of the project site. Acoustical surveys were performed throughout an entire year and occupied bat roosts were not found.
LUPA-BIO-IFS-14	Activity-specific active translocation of burrowing owls may be considered, in coordination with CDFW.	Consistent. The proposed project does not include active translocation of burrowing owls on BLM land. If burrowing owls are present in the project area, passive relocation may occur in conformance with CDFW guidelines.
Recreation and Visitor Services		
LUPA-REC-1	Maintain, and where possible enhance, the recreation setting characteristics – physical components of remoteness, naturalness and facilities; social components of contact, group size and evidence of use; and operational components of access, visitor services and management controls.	Consistent. The proposed project has been designed to be developed within the existing Mesa Wind energy facility, limiting new ground disturbance. New ground disturbance would not affect existing recreational trails near the project site.
LUPA-REC-2	Cooperate with the network of communities and recreation service providers active within the planning area to protect the principal recreation activities and opportunities, and the associated conditions for quality recreation, by enhancing appropriate visitor services, and by identifying and mitigating impacts from development, inconsistent land uses, and unsustainable recreation practices.	Consistent. The proposed project has been designed to be developed within the existing Mesa Wind energy facility, limiting new ground disturbance. New ground disturbance would not affect existing recreational trails near the project site.

Table 3.11-1. Desert Renewable Energy Conservation Plan CMA s Applicable to the Proposed Project

DRECP CMA	CMA Summary	Project Consistency with CMA
LUPA-REC-8	Provide ongoing maintenance of recreation and conservation facilities, interpretive and regulatory signs, roads, and trails.	Consistent. The proposed project does not include public access features. The only new signage that may be required is on the PCT near the project site. Temporary informational signs would be posted on the PCT consistent with APM REC-1.
Soil and Water General		
LUPA-SW-4	Nothing in the “Exceptions” below applies to or takes precedence over any of the CMA s for biological resources.	Consistent. Project impacts to biological resources would be considered less than significant with incorporation of APM BIO-1 through APM BIO-15 and implementation of MM BIO-1 and MM BIO-2.
LUPA-SW-20:	After application of applicable avoidance and minimization measures, all remaining unavoidable residual impacts to surface waters from the proposed activity shall be mitigated to ensure no net loss of function and value, as determined by the BLM.	The proposed project and access roads would comply with BMPs and avoid surface waters to the extent feasible. No unavoidable residual impacts to surface waters are anticipated.
LUPA-SW-24	A Groundwater Monitoring and Reporting Plan, and Mitigation Action Plan shall be prepared to verify the Water Supply Assessment and adaptively manage water use as part of project operations. This plan shall be approved by BLM, in coordination with USFWS, CDFW, and other agencies as appropriate, prior to the development, extraction, injection, or consumptive use of any water resource. The quality and quantity of all surface water and groundwater used for the project shall be monitored and reported using this plan. Ground- water monitoring includes measuring the effects of groundwater extraction on groundwater surface elevations, groundwater flow paths, changes to groundwater-dependent vegetation, and of aquifer recovery after project decommissioning. Surface water monitoring, if applicable, shall monitor changes in the flows, water volumes, channel characteristics, and water quality. Monitoring frequency and geographic scope and reporting frequency shall be decided on a site-specific basis and in coordination with the appropriate agencies that manage the water and land resources of the region. The geographic scope will include at the very least, all basins/sub- basins that potentially receive inflow from the basin where the Proposed	Consistent. Through implementation of APM WATER-2, the applicant would be required to prepare a Groundwater Monitoring Plan prior to initiation of construction activities.

Table 3.11-1. Desert Renewable Energy Conservation Plan CMA's Applicable to the Proposed Project

DRECP CMA	CMA Summary	Project Consistency with CMA
	Action may be sited, and all basins/sub-basins that may potentially contribute inflow to the basin where the Proposed Action is located. The plan shall also detail any mitigation measures that may be required as a result of the project. This plan and all monitoring results shall be made available to BLM. BLM will make the plan and results available to USFWS, CDFW, and other applicable agencies.	

Notes: CMA = Conservation Management Action; DRECP = Desert Renewable Energy Conservation Plan.

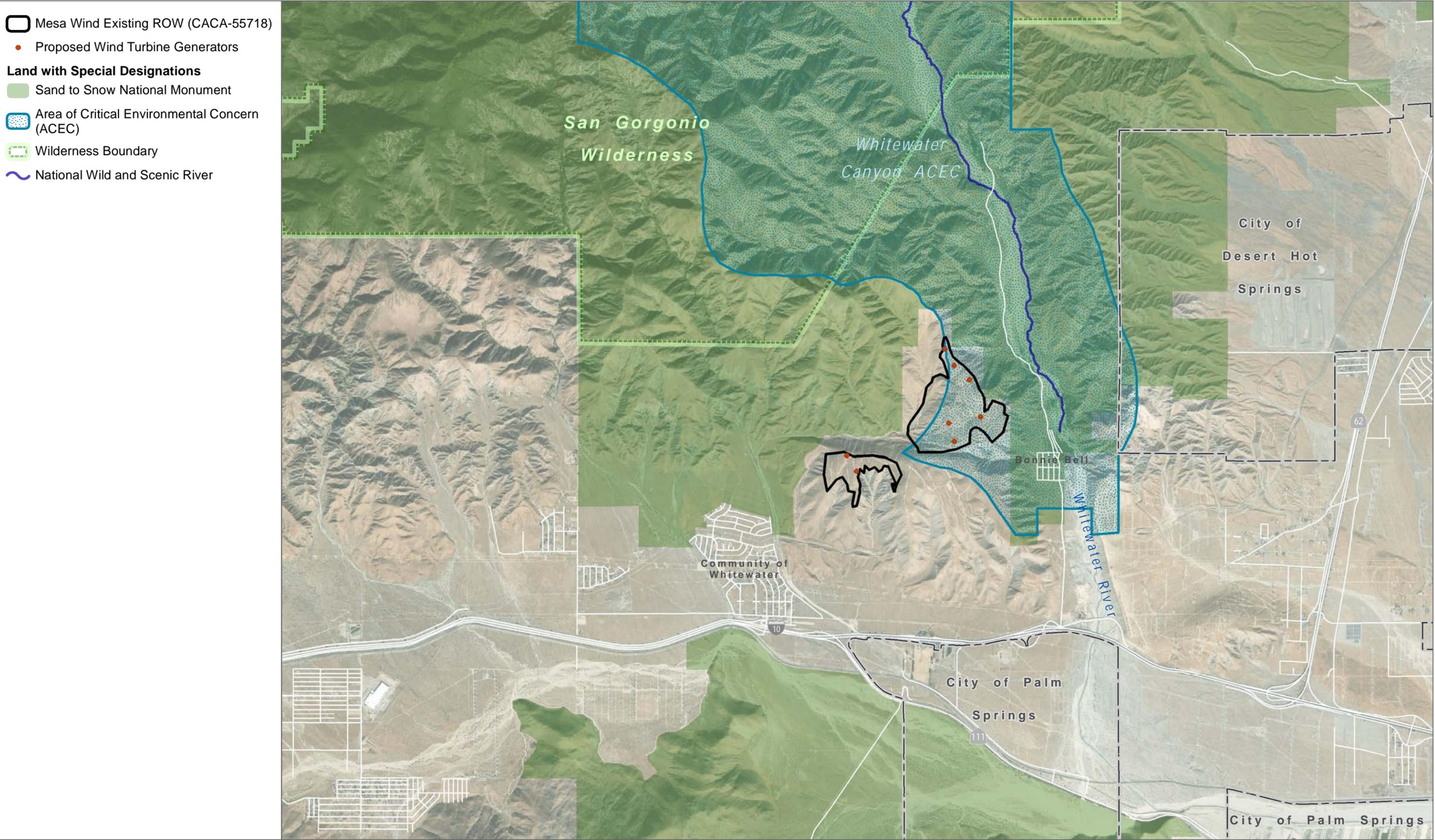
As shown in Table 3.11-1, the proposed project would not conflict with any applicable DRECP CMA's. BLM concluded that the proposed project conforms with the CDCA as amended by the DRECP LUPA. As such, implementation of the proposed project, with incorporation of APMs and mitigation measures, would be considered consistent with the purpose and intent of the DRECP LUPA and would not preclude BLM from implementing the DRECP LUPA.

Coachella Valley Multiple Species Habitat Conservation Plan

The project is within the CVMSHCP boundaries (CVAG 2007). The western portion of the project site is within the Stubbe and Cottonwood Canyons Conservation Area, and the eastern area of the site is within the Whitewater Canyon Conservation Area of the CVMSHCP. BLM is not a permittee under the CVMSHCP and therefore the project site would not be eligible for listed species take coverage under the CVMSHCP; however, the western portion of the access road (Figure 2-3, Site Plan) is located on private land and is currently undergoing a joint project review through the County for consistency with the CVMSHCP, with concurrence by the Coachella Valley Conservation Commission, CDFW, and USFWS. As discussed in Section 3.4(f), with implementation of MM BIO-1 through MM BIO-4, the proposed project would be consistent with the CVMSHCP.

Based on the foregoing discussion, with incorporation of APMs and implementation of MM BIO-1 through MM BIO-4, any environmental impacts due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect would be less than significant.

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SOURCE: ESRI, Aspen 2020



FIGURE 3.11-1
Special Designations
Mesa Wind Repower Project

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3.12 Mineral Resources

MINERAL RESOURCES

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

3.12.1 Setting

Mineral resources are broadly divided in California into fuel and non-fuel. Fuel resources consist of oil and gas resources and non-fuel resources include metals, industrial minerals, and construction aggregate. No oil or gas fields or active oil/gas wells are located in the immediate project vicinity (CalGEM 2020). Based on a review of Google Earth (2020), the project site is located between elevations of approximately 2,245 and 2,880 feet above mean sea level on hilly terrain in the San Geronio Pass.

Based on available geologic information, likelihood of mineral resources being present, and whether they have areas of known mineral resources, the State Geologist, under the Surface Mining and Reclamation Act, has mapped and classified areas of non-fuel mineral resources in California into four main categories, known as Mineral Resource Zones (MRZs). The project site is located in MRZ-3, which is identified by the California Geological Survey as areas containing known or inferred mineral occurrences of undetermined mineral resource significance (CGS 2007). The Bureau of Land Management (BLM), which manages the land, has not identified any important minerals on the project site. The U.S. Geological Survey’s Mineral Resource Data System (MRDS) (USGS 2020) indicates there was a historical gold prospect located in the north end of the project site; however, no metallic concentrations of economic significance were found at this location (USGS 1982).

Regulatory Background

Federal

Bureau of Land Management

The proposed project is located primarily on federal lands managed by BLM. BLM categorizes minerals as locatable minerals, leasable minerals, or mineral materials. The historical gold prospect on the site would be considered locatable minerals. No leasable minerals (such as oil or gas) or mineral materials (such as sand or gravel) occur on the site.

Locatable minerals are those that are subject to disposal under the Mining Law of 1872 (30 USC 22–54), and generally include metallic minerals such as gold, silver, copper, lead, zinc, and uranium; nonmetallic minerals such as alunite, asbestos, barite, bentonite, gypsum, geodes/gem minerals, mica, and zeolites; and certain varieties of stone. The BLM policy and guidance for uses related to locatable minerals includes BLM Manual MS 3809 – Surface Management; Handbook H-3809-1 – Surface Management; and BLM Handbook H-3042-1 – Solid Minerals Reclamation Handbook.

The BLM regulations at Title 43 of the Code of Federal Regulations, Parts 3715 and 3809, govern the development of locatable minerals and classify mining operations by the type of authorizations required: casual use, notice-level operations, and plan of operations-level operations.

State

Surface Mining and Reclamation Act

The SMARA of 1975 (Public Resources Code, Sections 2710-2796) provides a comprehensive surface mining and reclamation policy with the regulation of surface mining operations to assure that adverse environmental impacts are minimized, and mined lands are reclaimed to a usable condition. SMARA also encourages the production, conservation, and protection of California mineral resources. Public Resources Code 2207 provides annual reporting requirements for all mines in the state, under which the State Mining and Geology Board is also granted authority and obligations. SMARA Chapter 9, Division 2 of the Public Resources Code, requires the State Mining and Geology Board to adopt State policy for the reclamation of mined lands and the conservation of mineral resources. These policies are prepared in accordance with the Administrative Procedures Act (Government Code) and are in California Code of Regulations, Title 14, Division 2, Chapter 8, Subchapter 1.

Government Code Section 65302

This State code mandates that general plan land use elements address the distribution of mineral resources and provisions for continued availability of those resources. The Governor's Office of Planning and Research has established guidelines to ensure that general plan contents meet the requirements of Government Code Section 65302.

Local

The primary project facilities (wind turbine generators and substation) are located on BLM-administered land, and approximately 1,160 feet of the access roads are located within Riverside County. Therefore, the following is provided for informational purposes:

County of Riverside General Plan

Multipurpose Open Space Element. This element of the County of Riverside (County) General Plan (General Plan) addresses managing, protecting, and preserving natural resources, including mineral resources, and outlines the importance of mineral extraction for the County's economy (County of Riverside 2015). The General Plan addresses mineral resources in the County according to the Surface Mining and Reclamation Act and the State Mining and Geology Board. The County has extensive deposits of clay, limestone, iron, sand, and aggregates. The General Plan contains policies that guide conservation of areas identified as containing significant mineral deposits and oil and gas resources for potential future use, as well as managing the reasonable operation of mining and extraction activities in designated areas. Because the project site is not designated as an area containing significant mineral resources and the project does not propose mineral extraction, such policies are not applicable to the project.

Western Coachella Valley Area Plan. Figure 3 of the Western Coachella Valley Area Plan designates land uses throughout the plan area, including areas used for mineral resource extraction (County of Riverside 2019). The project site consists of two land use designations: Open Space Rural and Open Space Conservation Habitat. Extraction of mineral resources is subject to an approved surface mining permit, and permissible provided scenic resources and views are protected. However, there are no mineral resources identified on the project site.

Applicant Proposed Measures

No Applicant Proposed Measures or other measures regarding mineral resources are required.

3.12.2 Impact Analysis

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?

NO IMPACT. The project consists of repowering the existing wind energy facility and would not interfere with any active mining operations. Although a historical gold prospect was located in the north end of the project site, no metallic concentrations of economic significance were found at this location (USGS 1982). Nonetheless, because the project site is already developed with a wind energy facility, implementation of the project would not result in substantial impacts associated with the loss of availability of a known mineral resource. Furthermore, upon decommissioning of the project the potential for mineral development in the future will remain the same. The project would not constitute a substantial impact on regionally or locally important mineral resources. Therefore, no loss in availability of known mineral resources due to project activities would occur.

b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

NO IMPACT. The project site is currently developed with a wind energy facility, with no active mining operations. The site is not identified by BLM as an important mining site, and no economically significant mineral deposits have been identified on the project site. There are no delineated mineral resource recovery sites on the project site identified in the County General Plan or the Western Coachella Valley Area Plan (County of Riverside 2015, 2019). Therefore, no impact related to loss of availability of a locally important mineral resource recovery site would occur as result of the proposed project.

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3.13 Noise

NOISE				
Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

3.13.1 Setting

Community Noise. To describe environmental noise and to assess project impacts on areas that are sensitive to community noise, a measurement scale that simulates human perception is used. The A-weighted scale of frequency sensitivity accounts for the sensitivity of the human ear, which is less sensitive to low frequencies, and correlates well with human perceptions of the annoying aspects of noise. The A-weighted decibel scale (dBA) is cited in most noise criteria. Decibels are logarithmic units that can be used to conveniently compare wide ranges of sound intensities.

Community noise levels can be highly variable from day to day as well as between day and night. For simplicity, sound levels are usually represented by an average sound level over a given time period (L_{eq}). The average sound level (or equivalent sound level), measured in units of dBA L_{eq} , is a single average sound level for any desired duration, which includes averaging all of the sound levels recorded during the measurement period, usually 1 hour.

Community noise levels are usually closely related to the intensity of human activity. Noise levels are generally considered low when below 45 dBA, moderate in the 45 to 60 dBA range, and high above 60 dBA. In wilderness areas, the average day/night sound level (L_{dn}) noise levels can be below 35 dBA. In small towns or wooded and lightly used residential areas, the average day/night sound level is more likely to be around 50 or 60 dBA. Levels around 75 dBA are more common in busy urban areas, and levels up to 85 dBA occur near major freeways and airports. Although people often accept the higher levels associated with very noisy urban residential and residential-commercial zones, they nevertheless are considered to be adverse to public health.

Surrounding land uses dictate what noise levels would be considered acceptable or unacceptable. Lower levels are expected in rural or suburban areas than what would be expected for commercial or industrial zones. Nighttime ambient levels in urban environments are about 7 decibels (dB; note that A-weighted decibels are not used for comparative sound measurements or changes in sound level) lower than the corresponding daytime levels. In rural areas away from roads and other human activity, the day-to-night difference can be considerably less. Areas with full-time human occupation and residency are often considered incompatible with substantial nighttime noise because of the likelihood of disrupting sleep.

Noise levels above 45 dBA at night can result in the onset of sleep interference. At 70 dBA, sleep interference effects become considerable (EPA 1974).

Noise Environment in the Project Area. The project site is located in a rural area, which is expected to have background noise levels of approximately 40 dBA during the day and 30 dBA at night, typical of levels that are associated with the low population density of the area. However, given the high winds in the area, ambient levels could be higher when wind noise is factored in. Within the project site, operation of existing WTGs contributes to elevated background noise levels. In addition, for locations that are near traffic and the roadways accessing the project site, the noise levels caused by existing traffic are likely noticeable and contribute to baseline ambient conditions. Approximately 1.2 miles south of the project site, Interstate (I) 10 is a substantial source of traffic noise.

Noise Sensitive Areas. Noise sensitive land uses are categorized as follows (23 CFR, Part 772):

- **Most Sensitive:** Lands on which serenity and quiet are of extraordinary significance and serve as important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
- **Sensitive:** Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.

Primary noise-sensitive land uses proximate to the project site include the following, which are also shown on Figure 3.13-1, Distances to Nearest Receptors:

- The unincorporated community of Bonnie Bell, located approximately 0.65 miles southeast of the nearest wind turbine generator (WTG)
- The unincorporated community of Whitewater, located approximately 1 mile southwest of the nearest WTG
- The Pacific Crest Trail, which is located along the western and northern project boundary

Regulatory Background

Federal

No federal regulations associated with noise apply to the proposed project.

State

No state regulations associated with noise apply to the proposed project.

Local

Riverside County Noise Ordinance

No. 847. This ordinance contains regulations pertaining to temporary construction noise that apply to the proposed project, as follows:

- **Construction Noise.** Per Riverside County (County) Ordinance No. 847, noise generated from the following uses are exempt from any performance standard threshold, under the following circumstances:
 - h. Private construction projects located one-quarter (1/4) of a mile or more from an inhabited dwelling.

No. 348, Section 18.41 (Commercial Wind Energy Conversion Systems Permits). Wind Energy Conversion Systems (WECS) are subject to operational noise provisions in County Ordinance No. 348. For WECS that would occur nearer than 3,000 feet to receptors, including habitable dwellings, the ordinance requires acoustical studies to demonstrate compliance with a 55 dBA standard. As discussed under Threshold (a) in Section 3.13.2, although the nearest proposed WTG would be 3,450 feet from any residence, this 55 dBA threshold is used for the operational noise analysis.

County of Riverside General Plan

The County General Plan's Noise Element contains the following noise policies (County of Riverside 2015) that are relevant to the proposed project:

N 1.3 Consider the following uses noise-sensitive and discourage these uses in areas in excess of 65 CNEL [community noise equivalent level]:

- Schools.
- Hospitals.
- Rest Homes.
- Long Term Care Facilities.
- Mental Care Facilities.
- Residential Uses.
- Libraries.
- Passive Recreation Uses.
- Places of Worship.

According to the State of California Office of Planning and Research General Plan Guidelines, an acoustical study may be required in cases where these noise-sensitive land uses are located in an area of 60 CNEL or greater. Any land use that is exposed to levels higher than 65 CNEL will require noise attenuation measures.

Areas around airports may have different noise standards than those cited above. Each Area Plan affected by a public-use airport includes one or more Airport Influence Areas, one for each airport. The applicable noise compatibility criteria are fully set forth in Appendix L-1 and summarized in the Policy Area section of the affected Area Plan

N 1.8 Limit the maximum permitted noise levels that cross property lines and impact adjacent land uses, except when dealing with noise emissions from wind turbines. Please see the Wind Energy Conversion Systems section for more information.

N 5.1 Enforce the Wind Implementation Monitoring Program (WIMP).

N 5.2 Encourage the replacement of outdated technology with more efficient technology with less noise impacts.

Applicant Proposed Measures

No Applicant Proposed Measures or other measures regarding noise are required.

3.13.2 Impact Analysis

- a. *Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Construction/Decommissioning

LESS THAN SIGNIFICANT IMPACT. Construction and decommissioning of the project would create short-term and temporary noise from equipment use and activities. Construction would include installation of eight new WTGs, along with the associated electrical collection system, and modifications to existing access roads. The installation of the proposed WTGs would temporarily generate noise in the vicinity of the project site and transportation corridors due to the use of heavy-duty construction equipment, haul trucks, and other vehicles. Future decommissioning would include dismantling and disposal of the WTGs and associated project components.

As stated under Regulatory Background in Section 3.13.1, Setting, Riverside County Ordinance No. 847 exempts private construction projects from any noise performance standard threshold if they are located 0.25 miles (1,320 feet) or more from an inhabited dwelling. As shown on Figure 3.13-1, the nearest residence is 3,450 feet from the nearest project work site. Therefore, the proposed project would be exempt from any noise threshold or standard and would be in compliance with Riverside County Ordinance No. 847.

While project construction/decommissioning would be exempt from any noise threshold, the following is provided for information purposes. The construction of proposed WTGs would be accomplished within a period of 16 months and future decommissioning would be completed within 12 months. During this time, noise from construction/decommissioning would be limited to occur during the day, when noise is tolerated better than at night due to the masking effect of background noise. Construction equipment used would vary depending on the work to be accomplished; therefore, the associated noise would be intermittent. Types of equipment to be used would include graders, dump trucks, compactors, excavators, drill rigs, concrete trucks, and cranes. As shown in Appendix D, Noise Level Calculations, the loudest construction equipment is anticipated to be 85 dBA at 50 feet from the source. Based on this peak level, Table 3.13-1 presents expected construction noise levels at various distances, assuming an average noise attenuation (reduction) of 6 dB per doubling of distance (FTA 2018).

Distance from Source (feet)	Noise Level (dBA L_{eq})
50	85
100	79
200	73
400	67
800	61
1,600	55
2,000	49
3,400	44
4,000	43

Notes: dBA = A-weighted decibel; L_{eq} = average sound level.

As shown, temporary construction noise levels are expected to be approximately 44 dBA at the nearest residences. The levels provided in Table 3.13-1 do not account for changes in elevation and the fact that receptors would be often shielded by terrain, both of which would likely decrease the actual noise level compared to Table 3.13-1. Therefore, a worst-case level of 44–49 dBA or lower is expected to be barely perceptible or not perceptible at all at the nearest residential receptors. In addition, because the general area has high winds that increase ambient noise levels, it is expected that the majority of project construction noise may not be perceptible at all. Future decommissioning of the proposed project could result in similar noise impacts as project construction because similar construction equipment would be required.

Approximately four trucks per hour would travel along the public road between I-10 and the main project access road. Typical truck traffic volumes related to the project would be 200 delivery (heavy) trucks per week over a 6-month period. Such a small daily volume of heavy-truck trips would have a negligible effect on average ambient noise levels along this road due to the infrequent and temporary noise levels from heavy-truck trips. Worker commute traffic and medium-duty truck deliveries would cause less noise than the heavy-truck traffic because each light-duty vehicle pass-by emits about one-tenth of the sound of a heavy truck. While this temporary noise source would be perceptible from residences along the project access road, such noise would be temporary in nature, stopping when construction ends. Furthermore, this roadway is public and is already subject to public traffic noise levels.

In addition, vegetation clearing would be required along one of the off-site construction access roads, occurring along the edges of the roadway at the intersection of Cottonwood Road/Rockwood Drive and along Rockview Drive, a distance of approximately 2,850 feet. Vegetation removal would occur adjacent to three residences in this area; however, these activities would last a short duration. As such, due to the momentary and temporary nature of these activities, noise generated along the public access road would not result in significant noise impacts at adjacent residences. Future decommissioning of the proposed project could result in similar noise impacts as project construction because similar construction equipment would be required. Although this noise would be noticeable, temporary construction/decommissioning traffic noise would also be exempt under Riverside County Ordinance No. 847. Therefore, construction of the proposed project would have a less-than-significant impact on ambient noise levels.

Operation

LESS THAN SIGNIFICANT IMPACT. During operation of the proposed project, WTGs would contribute to noise in two categories: mechanical and aerodynamic. There are also different types of noise produced by operations and maintenance (O&M) activities, which include transformer noise (a low-frequency hum) and switchgear noise (short, loud snapping and/or crackling) from step-up transformers and existing substations, and corona noise (crackling or hissing) from existing transmission lines. During maintenance, noise sources include vehicular traffic noise, including commuter and visitor and material delivery; and noise from the O&M facility.

Mechanical WTG noise is associated with the rotation of mechanical and electrical components. This type of noise on WTGs is primarily generated by the gearbox and related parts, and tends to be tonal in nature. The dominant noise component for the proposed WTGs is aerodynamic noise. Aerodynamic noise is generated by the moving blades passing through the air, which may produce a buzzing, whooshing, pulsing, or sizzling sound, depending on the type of WTG and operating speed. Most of the noise generated during operation radiates perpendicular to the rotation of the blades. On modern WTGs, this type of noise is substantially less of a factor because modern WTGs have been designed to minimize noise.

The proposed WTGs would generate a peak noise level of 85.3 dBA at 50 feet from the source (refer to Appendix D). These levels could be slightly revised when the specific WTG models are chosen, but they represent the maximum potential source level, at the wind speed that causes the highest sound levels (10 meters [33 feet] per second at the hub). At high wind speeds, the noise from the wind itself tends to mask the increasing WTG noise.

To determine the potential noise impacts from the proposed project at nearby residences and other noise sensitive areas, modeled noise levels for a single WTG was analyzed at multiple distances from the noise source, assuming noise would attenuate (diminish) at an average of 6 dB per doubling of distance (refer to Appendix D for the noise calculations). Considering geometric spreading only, each WTG would cause a peak sound pressure level of 75 dBA at a distance of 50 meters (164 feet). The predicted peak noise level of a single WTG is presented in Table 3.13-2.

Distance from Source (feet)	Noise Level (dBA L_{eq})
164	75
328	69
656	63
1,312	57
2,642	51
3,400	~49

Notes: dBA = A-weighted decibel; L_{eq} = average sound level.

As shown in Table 3.13-2, the noise from each WTG would not exceed the 55 dBA standard established by Riverside County Ordinance No. 348 for impacts caused by WECS at habitable dwellings (the nearest residence is 3,450 feet from a WTG). For the Pacific Crest Trail locations near the project site boundary, the noise levels would not exceed 65 dBA at 500 feet from any proposed WTG (which is the distance to the closest segment of the Pacific Crest Trail).

Spacing between the WTGs would be approximately 500 feet or more. At this distance, the noise level of the next nearest WTG would be approximately 65 dBA at the closest WTG to a residence. This level would not substantially combine with noise generated by the WTG closest to a residence. Therefore, noise from multiple WTGs is not expected to substantially combine and cause a cumulative noise impact to the nearest residences.

Along with the WTGs, there would be noise generated from the substation and the transmission line, as well as noise generated by O&M activities. Two sources of noise are associated with substations: transformer noise, and switchgear noise. A transformer produces a constant low-frequency humming noise that is generally uniform in all directions and continuous. Switchgear noise is impulsive in nature, loud, and of very short duration, as it comes from the operation of circuit breakers used to break high-voltage connections. Noise from regular O&M activities would include periodic site visits involving light- or medium-duty vehicle traffic with relatively low noise levels. Infrequent but noisy activities would be anticipated for road maintenance work with heavy equipment, as well as occasional repairs to WTGs or auxiliary equipment. The anticipated noise levels for these activities would be well below those of WTGs and would not exceed any established thresholds. Therefore, impacts associated with noise generated during project operations would be less than significant.

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels generation of excessive groundborne vibration or groundborne noise levels?

Construction and Decommissioning Impacts

LESS THAN SIGNIFICANT IMPACT. Construction and future decommissioning of the project would use different types of equipment that may cause minimal amounts of groundborne vibration or noise. Types of activities that could cause groundborne vibrations are drilling equipment and traffic consisting of medium- and heavy-duty vehicles driving over uneven surfaces. These vibrations may be felt in the immediate vicinity of construction/future decommissioning activities and are temporarily bothersome within 50 feet, depending on the source. No project activity during construction or decommissioning is likely to create substantial and consistent vibration that could cause damage or annoyance. The primary source of vibration at residences would be heavy trucks accessing the site. However, because the road between I-10 and the site entrance is unpaved, heavy truck speeds would be low (15 mph or less). This reduced speed would significantly reduce the amount of temporary vibration generated, which is not expected to extend beyond the road width limits. Therefore, impacts associated with groundborne vibration during construction and future decommissioning would be less than significant.

Operation

NO IMPACT. Operation of the proposed project would not cause groundborne vibration or groundborne noise levels from equipment or facilities. Vibrations from WTGs can lead to ground vibrations and these can be measured with sensitive vibration sensors. In several studies, WTG vibrations have been measured at large distances; however, this was because these vibrations could affect the performance of seismic stations that detect nuclear tests. These vibrations are too weak to be detected or to affect humans, even for people living close to WTGs (van Kamp and van den Berg 2017). Further studies have measured the vibrations at the foot of WTGs and at nearby residences, with the results showing these vibration levels being very low; at the residences, not only were vibrations low but the vibrations measured did not correspond with the output of the WTG (Meunier 2013). Therefore, because the nearest residence to a proposed WTG would be approximately 3,450 feet away, no operational vibration impacts would occur.

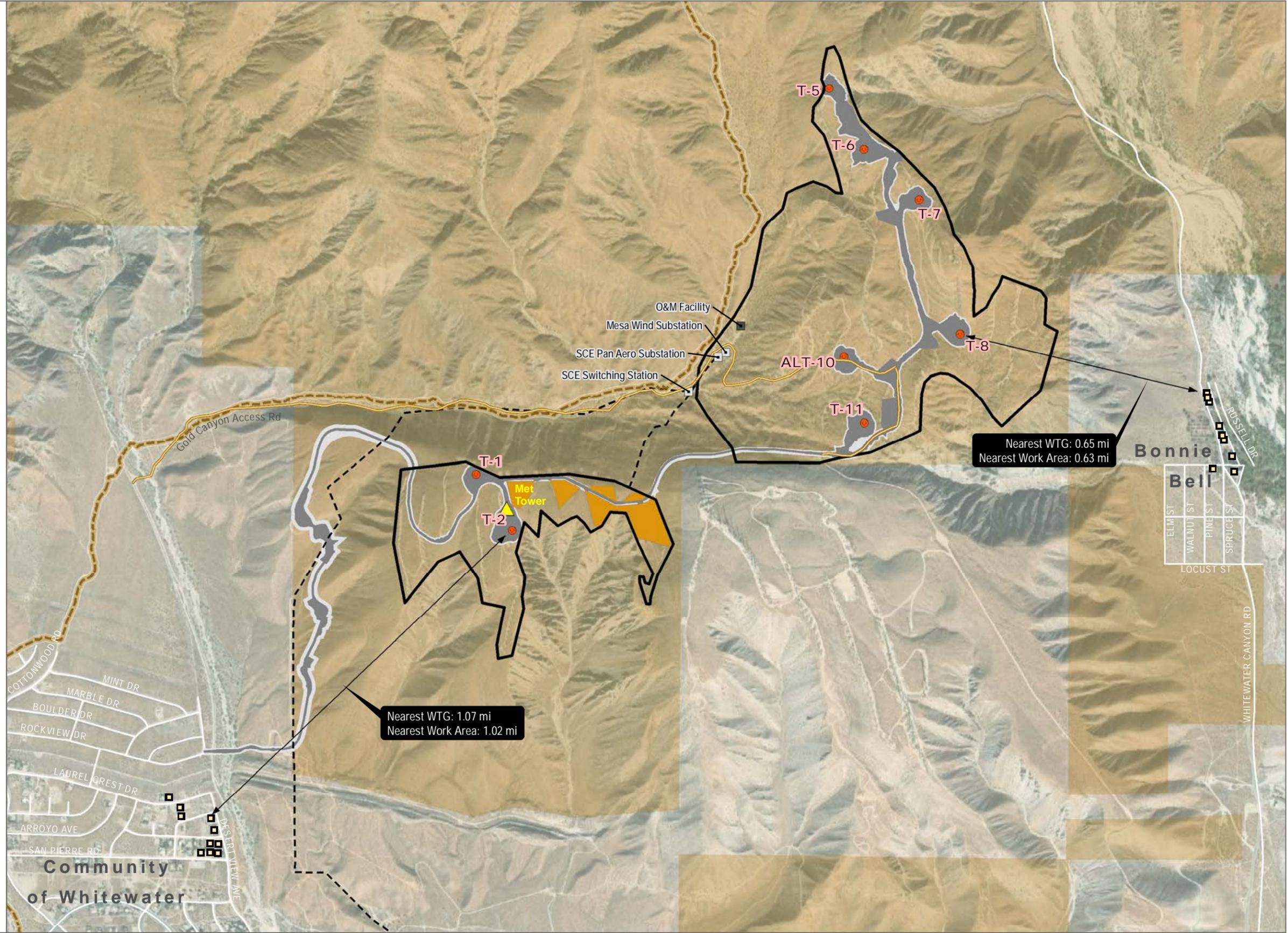
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Construction/Operation

NO IMPACT. The project is not located within the vicinity of a private airstrip or an airport land use plan. The closest airports to the project site are the Banning Municipal Airport (more than 10 miles west of the project site) and the Palm Springs International Airport (10 miles southeast of the project site). As such, the proposed project would not expose people residing or working the in the project area to excessive noise levels during construction, operation, or decommissioning. Therefore, no impact would occur.

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-  Mesa Wind Existing ROW (CACA-55718)
-  Substation Building
-  O&M Facility
-  Existing Transmission Lines
-  Nearby Receptors (Residences)
- Proposed Project**
-  Wind Turbine Generators
-  Permanent, Non-Guyed Met Tower
-  Temporary Construction Facility
-  Project Impact
-  Potential Disturbance Buffer
- Land Ownership**
-  U.S. Bureau of Land Management
- National Scenic Trails**
-  Pacific Crest Trail



SOURCE: ESRI, Aspen 2020



FIGURE 3.13-1
Distances to Nearest Receptors
Mesa Wind Repower Project

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3.14 Population and Housing

POPULATION AND HOUSING

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

3.14.1 Setting

The project site is located in the San Gorgonio Pass. The nearest communities are Whitewater and Bonnie Bell, which are approximately 1 mile to the southwest and 0.65 miles to the southeast, respectively. The nearest city is the City of Palm Springs, which is approximately 11 miles southeast of the proposed project site. There is no existing housing on or immediately adjacent to the project site, and the closest residential use to the nearest wind turbine generator (WTG) is the Bonnie Bell community, approximately 0.65 miles to the southeast (refer to Figure 3.13-1, Distances to Nearest Receptors).

Regulatory Background

Federal

There are no federal programs, policies, or regulations related to population and housing that are applicable to the project.

State

There are no state programs, policies, or regulations related to population and housing that are applicable to the project.

Local

The primary project facilities (WTGs and substation) are located on land administered by the Bureau of Land Management, and a portion (approximately 1,160 feet) of the main access road, and the off-site construction access roads are located within Riverside County. Therefore, the following information is provided for informational purposes.

County of Riverside General Plan

Housing Element. This element of the County of Riverside (County) General Plan identifies and establishes the County’s policies regarding meeting the needs of existing and future residents in Riverside County (County of Riverside 2017). The policies established in this element guide the County’s decision-making process and introduce an action plan to implement its housing goals through 2021.

Applicant Proposed Measures

No Applicant Proposed Measures or other measures regarding population and housing are required.

3.14.2 Impact Analysis

a. *Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

NO IMPACT. The purpose of the project is to repower an existing wind energy facility, which would include removal of 460 existing WTGs and installation of 8 new WTGs. No new housing or businesses are proposed as part of the project; therefore, the project would not directly induce population growth.

The project does not involve the extension of roads or other infrastructure, which could indirectly induce population growth. The project has two existing main access roads, which would be improved and/or widened, and additional spur roads may be required to reach the new WTGs. However, improvements to these access routes would not create through-routes, provide connections between communities, or otherwise remove obstacles to growth. Additionally, the project would supply up to 30 megawatts of wind energy, which is the same nameplate capacity as the existing wind energy facility. As such, the project would not result in an increase in power supply. Therefore, construction of the infrastructure associated with the project and the project's operation would not indirectly encourage new development or induce population growth.

Project construction would result in a temporary increase in employment opportunities in the area, and some specialty workers may temporarily reside in the project area. However, it is anticipated that most construction workers would come from the local labor pool and would be expected to commute to the project site from surrounding communities. Furthermore, because project operations are expected to be carried out by existing staff, there would be no increase in permanent employment positions during project operation. Therefore, the project would not result in new employment opportunities that could induce growth in the region.

The project would not induce substantial unplanned population growth, directly or indirectly, and no impact would occur.

b. *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

NO IMPACT. Under existing conditions, the project site operates as a commercial wind energy facility and there are no people living on nor existing housing units located on the project site. The project would replace the existing wind energy facility, and would not require the permanent removal or displacement of people or existing housing that would warrant replacement housing be constructed elsewhere. Furthermore, as discussed under Initial Study Threshold (a), the project would not induce population growth such that construction of new housing would occur. Therefore, the project would not result in any impacts related to the displacement of people or existing housing.

3.15 Public Services

PUBLIC SERVICES

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

3.15.1 Setting

Fire Protection. Fire protection services in the project area are provided by a combination of federal (U.S. Forest Service, Bureau of Land Management [BLM] Fire), state (California Department of Forestry and Fire Protection [CAL FIRE]), and local agencies (Riverside County Fire Department).

The Riverside County Fire Department, in collaboration with CAL FIRE, provides fire and emergency services to residents of unincorporated areas of Riverside County (the County), as well as to multiple partner cities. Fire suppression and protection is further divided geographically by Federal, State, and Local Responsibility Area. These designations represent areas of fiscal responsibility for fire suppression and protection. However, multiple fire agencies may collaborate and respond to a fire event based on proximity, mutual aid agreements, and California's interagency cooperative fire protection agreement (BLM n.d.). The project site is located within a Federal Responsibility Area, and according to the County of Riverside General Plan Safety Element, it is categorized as a Moderate Fire Hazard Severity Zone (County of Riverside 2019). The project region is susceptible to wildfires due to the presence of dense, dry fuels, paired with a warm and arid climate. In the event of a fire or emergency on the project site, first responders to the project site would be expected to come from BLM Fire and/or the Riverside County Fire Department. The closest BLM Fire station is located approximately 13 miles northeast of the project site. The closest Riverside County Fire Department fire stations are the Desert Hot Springs Station 36 (11535 Karen Avenue, Desert Hot Springs, California), approximately 5 miles northeast of the project site, and the Cabazon Station 24 (50382 Irene Street, Cabazon, California), located approximately 5.7 miles southwest of the project site.

Police Protection. Police and law enforcement services in the project area are provided by the California Highway Patrol (CHP) and the Riverside County Sheriff's Department. The CHP has jurisdiction over all California highways, and acts as a statewide law enforcement agency. The Beaumont CHP office is located approximately 15 miles west of the project site (as traveled on Interstate 10) and has jurisdiction over the project area. The Riverside County Sheriff's Department provides law enforcement and police protection services for the County via 10 sheriff's stations throughout the region, including the project area. The unincorporated community of Whitewater and the surrounding project area are covered by the Palm

Desert and Cabazon Sheriff's Stations (RCSD n.d.). The nearest sheriff's station to the project site is the Cabazon Sheriff's Station (50290 Main Street, Cabazon, California), located approximately 5.7 miles southwest of the project site. In addition, the City of Desert Hot Springs Police Department is approximately 8 miles east of the project site, and the Palm Springs Police Department is approximately 12 miles southeast of the project site.

Schools. The Banning Valley Unified School District provides public education services for the project area. There are no schools within 1 mile of the project site. The closest school to the project site is Cabazon Elementary school, which is more than 5 miles to the southwest. The next-nearest schools include Julius Corsini Elementary School in Desert Hot Springs and Rio Vista Elementary School in Cathedral City, both of which are more than 11 miles away to the east and southeast, respectively.

Parks. There are no parks within 1 mile of the project site. There are recreation opportunities in the vicinity of the project site, such as the Pacific Crest Trail, which runs adjacent to the project site, and numerous federal and state lands open to recreation nearby. Refer to Section 3.16, Recreation, for a discussion of nearby recreational areas.

Other Public Facilities. There are no other public facilities within 1 mile of the project site. The nearest libraries are Cabazon Public Library, approximately 6 miles away from the project site, and Desert Hot Springs Library, which is approximately 8 miles from the project site. The closest health center is the Desert Regional Medical Center, approximately 10 miles away from the project site, which is open 24 hours a day and provides emergency and trauma services.

Regulatory Background

Federal

There are no applicable federal plans, policies, or ordinances related to public services.

State

California Health and Safety Code

State fire regulations are set forth in Section 13000 et seq. of the California Health and Safety Code, including regulations for building standards (also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, and fire suppression training.

California Occupational Safety and Health Administration

In accordance with California Code of Regulations, Title 8, Section 1270, Fire Prevention, and Section 6773, Fire Protection and Fire Equipment, the California Occupational Safety and Health Administration (Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials; fire hose size requirements; restrictions on the use of compressed air; requirements for access roads; and guidelines for testing, maintaining, and using all firefighting and emergency medical equipment.

Mutual Aid Agreements

The California Disaster and Civil Defense Master Mutual Aid Agreement, as provided by the California Disaster Act, provides statewide mutual aid between and among local jurisdictions and the state. The statewide mutual aid system exists to ensure that adequate resources, facilities, and other supports are

provided to jurisdictions whenever resources prove to be inadequate for a given situation. Each jurisdiction controls its own personnel and facilities, but can give and receive help whenever needed.

Local

The primary project facilities (wind turbine generators [WTGs] and substation) are located on BLM-administered land, and approximately 1,160 feet of the access roads are located within Riverside County. Therefore, the following is provided for informational purposes.

Western Coachella Valley Area Plan. Policy WCVAP 25.1 addresses the protection of life and property from wildfire hazards through adherence to requirements in the Fire Hazards section of the County of Riverside General Plan's Safety Element.

County of Riverside General Plan Safety Element. The County of Riverside General Plan Safety Element includes a section on building code and performance standards, as well as wind-related hazards, and long-range fire safety planning. These sections include lists of policies to support the effort, such as preventive measures, development guidelines, and response time expectations.

Applicant Proposed Measures

The following Applicant Proposed Measures (APMs) would reduce impacts related to public services, and where applicable, are referenced in the impact analysis sections of this document:

APM FIRE-1 Construction Fire Prevention Plan (refer to Section 3.20, Wildfire, for full text).

APM FIRE-2 Fire Management Plan (refer to Section 3.20, Wildfire, for full text).

3.15.2 Impact Analysis

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a) Fire protection?

LESS THAN SIGNIFICANT IMPACT. Construction and routine maintenance of the project is not expected to significantly increase the risk of fire or otherwise increase demand for fire services such that new or physically altered government facilities, including additional fire stations, would be required. The project site is located within a Moderate Fire Hazard Severity Zone within a Federal Responsibility Area (County of Riverside 2019). The project would replace 460 existing WTGs that are more than 30 years old with up to 8 new WTGs with current safety features, which would decrease the risk of fire. Safety features would include a controller, which is a microprocessor that automatically regulates the operation of the new WTGs, including startup, shutdown, pitch control (technology used to operate and control the angle of the blades), yaw control (mechanism used to turn the WTG rotor against the wind), and safety monitoring. This information would be communicated to the operations and maintenance (O&M) facility from the controller via fiber-optic cables. A central supervisory control and data acquisition (SCADA) system would monitor data input from the controller to streamline centralized O&M; in some cases, the system can even analyze the data and take corrective measures.

Project construction would introduce new potential ignition sources to the project area, such as vehicles, sparks from construction equipment, hot work (e.g., welding activities), parking of vehicles on dry

vegetation, and the overall temporary increase in human activity in the project area. All construction equipment is required to have fire suppression equipment on board or at the work site to ensure the availability of an adequate on-site supply of water with all-weather access for firefighting equipment and emergency vehicles. The project would implement APM FIRE-1 (Construction Fire Prevention Plan; see Section 3.20, Wildfire) and APM FIRE-2 (Fire Management Plan; refer to Section 3.20) to assist in prevention of fire incidents and ensure that proper response occurs in the event of a fire.

Emergency response via the fire department could be required at the project site should an accident occur during construction or O&M activities, as is the case under existing conditions. However, the likelihood of an accident requiring such a response is unknown and is not expected to be significant, because construction and maintenance activities associated with the project would be short term and temporary in nature. Furthermore, O&M activities on site would be similar to existing conditions, and the project is not anticipated to increase the likelihood that fire protection and emergency services would be required on site.

In addition, as discussed in Section 3.14, Population and Housing, the project would not induce population growth typically associated with an increase in demand for fire protection. In addition, the project site is already served by the Riverside County Fire Department and BLM Fire, and the proposed land use would be the same as the existing land use. For these reasons, calls for service originating from the project site are not expected to increase following implementation of the proposed project. Therefore, with respect to disrupting existing fire service levels, the project's impact would be less than significant and would not require new or expanded fire facilities.

b) Police Protection?

LESS THAN SIGNIFICANT IMPACT. The increase in activity on the project site due to the presence of workers and equipment associated with construction and maintenance activities could result in an increased demand for police protection on site. For instance, project activities may attract vandals or other security risks that could increase demand for law enforcement services. However, because construction activities associated with the project would be short term and temporary in nature, the likelihood of requiring such a response is not expected to be significant. Furthermore, as previously discussed, the project would not induce population growth typically associated with an increased demand for police protection. Security measures would be in place to minimize the amount of service calls to the project site. As with existing operations, access gates would be locked at night, and access roads would be gated and locked at night during both construction and operation of the proposed project. In addition, during operation, the project is not likely to elicit a significant volume of calls for police protection, nor would calls for service be expected in greater volume than under existing conditions, because the proposed land use would be the same as existing conditions. As such, calls for police services at the project site are not expected to increase following implementation of the proposed project. Therefore, with respect to disrupting existing police service levels, the project's impact would be less than significant and would not require new or expanded police facilities.

c) Schools?

NO IMPACT. The project would have no direct physical impact to schools. As discussed in Section 3.14, the project would not induce population growth in the area, including an increase in school-age children, typically associated with a need for new or expanded school facilities. During construction, workers are expected to commute to the site from surrounding communities, and project construction would not result in permanent employment in the area. Operation of the project would not induce population growth in the area, because maintenance activities would be similar to existing conditions. Because the

project would not generate a permanent increase in population that would impact school populations, requiring new or expanded school facilities, there would be no impact to schools.

d) Parks?

NO IMPACT. The project would have no direct physical impact on parks. Construction and maintenance activities would not generate a permanent increase in population that could impact park facilities or conditions (refer to Section 3.14). Therefore, because the project would not result in a permanent increase in demand for local park facilities, there would be no substantial impact on existing park facilities in the project area and no need for new park facilities. Also refer to Section 3.16 for additional discussion of recreational opportunities in the project area. No impact to parks would occur.

e) Other Public Facilities?

NO IMPACT. Construction and maintenance activities would not generate a permanent increase in population that would impact public facilities, such as post office, library, or medical services. Therefore, no impact would occur.

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3.16 Recreation

RECREATION

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

3.16.1 Setting

The project site is located in the San Geronio Pass, near the communities of Whitewater and Bonnie Bell, and approximately 11 miles from the City of Palm Springs. There are no neighborhood or regional parks within 1 mile of the project site.

There are two Bureau of Land Management (BLM) Special Recreation Management Areas (SRMAs) within the project area, the Sand to Snow SRMA and the Pacific Crest Trail (PCT) SRMA (refer to Figure 3.16-1, Special Recreation Management Areas). A SRMA is a BLM administrative unit where existing or proposed recreation opportunities and recreation setting characteristics are recognized for their unique value, importance, or distinctiveness (BLM 2016). SRMAs allow for wind energy facility repower within existing right-of-way (ROW) boundaries.

The Sand to Snow SRMA provides opportunities for hiking, wildlife watching, camping, equestrian use, and sightseeing. Most of the project site is outside this SRMA, except for the northernmost part, which is in both the Sand to Snow SRMA and the PCT SRMA.

The PCT SRMA is a buffer to a portion of the 2,650-mile PCT, which is used by thousands of hikers and equestrian users. The PCT is one of the first trails to be designated a national scenic trail by the National Trails System Act of 1968, as amended (NPS 2019). The PCT SRMA overlaps a portion of the Mesa Wind energy facility ROW because the PCT runs northwest of the project site, with its buffer overlapping the project site. The PCT SRMA is managed to provide protection of natural and cultural resources consistent with law, regulation, and policy. It is also managed to continue existing partnerships with allied stakeholders, non-government organizations, local landowners, and groups to reduce motorized trespass on and across the PCT. A National Trail Management Corridor permanently protects the PCT, including side and connecting trails as well as facilities such as campsites, water sources, and viewpoints. Most of the western part of the ROW is included in the PCT National Trail Management Corridor (BLM 2016). The existing Mesa Wind energy facility included installation of a shade structure and a water source for hikers located approximately 300 feet from the PCT. Other than while accessing the shelter, PCT users do not use the project site.

Regulatory Background

Federal

National Trails System Act, 1968. This Act established the PCT as part of the system of recreational, scenic, and historic trails, as a National Scenic Trail. The PCT is managed by the BLM, the U.S. Forest Service, and the National Park Service.

Federal Land Policy and Management Act

The Federal Land Policy and Management Act (FLPMA) recognizes the value of public lands and includes the multiple use/sustained yield framework for management to provide for outdoor recreation for future generations. Title VI of FLPMA, Designated Management Areas, California Desert Conservation Area, acknowledges the recreational resources contained within the California desert environment and directs the BLM to develop a multiple use and sustained yield management plan to conserve the desert's resources, particularly recreational use. The solar facility site is governed by these pieces of legislation, and its various alternatives would impact the recreational opportunities available in the vicinity.

California Desert Conservation Area Plan

The BLM's California Desert Conservation Area (CDCA) Plan establishes goals for management of recreation in the California Desert. As with the FLPMA, recreational opportunities in the study area are framed by the CDCA Plan. The goals are to provide for the use of the public lands and resources of the CDCA, including recreational uses in a manner that enhances recreation where possible, but do not diminish the environmental, cultural, and aesthetic values of the desert (BLM 1999). The goals of the Recreation Element of the plan are to:

- Provide for a wide range of quality recreation opportunities and experiences emphasizing dispersed undeveloped use;
- Provide a minimum of recreation facilities. Those facilities should emphasize resource protection and visitor safety;
- Manage recreation use to minimize user conflicts, provide a safe recreation environment, and protect desert resources;
- Emphasize the use of public information and education techniques to increase public awareness, enjoyment, and sensitivity to desert resources;
- Adjust management approach to accommodate changing visitor use patterns and preferences; and
- Encourage the use and enjoyment of desert recreation opportunities by special populations, and provide facilities to meet the needs of those groups.
- Provide for off-road vehicle recreation use where appropriate in conformance with FLPMA, Section 601, and Executive Orders 11644 and 11989.

Areas of Critical Environmental Concern (ACECs) are also identified as special management areas in the CDCA Plan. These include areas where special management attention is required to protect important historic, cultural, scenic, biological, or other natural resources.

The CDCA Plan also includes a motorized-vehicle access element which provides a system and a set of rules that governs access to the CDCA by motor vehicles. The rules include providing for constrained motor-vehicle access, while protecting desert resources (BLM 1999). When the CDCA Plan was first

adopted, the BLM designated a network of motorized vehicle routes on public lands within the northern and eastern Mojave Desert. The BLM designated routes for north-central and southern portions of the CDCA. The BLM manages OHV use so that the conditions for special status species and other natural and cultural resources are maintained.

Desert Renewable Energy Conservation Plan

The BLM published the Land Use Plan Amendment (LUPA) and Final Environmental Impact Statement for the DRECP in November 2015. The Desert Renewable Energy Conservation Plan (DRECP) amended the CDCA Plan with the signing of the Record of Decision in September of 2016. It designates SRMAs within the California Desert, including the project area (BLM 2016). The DRECP includes additional conservation management actions for recreation that dictate the types of activities allowed near certain recreational features. Specific to the Whitewater Canyon ACEC, which bisects a portion of the project site, the DRECP states that wind energy development currently exists in the ACEC (BLM 2016). BLM will accept applications for repowering or replacement of existing wind energy facilities if the development remains within the existing wind energy right-of-way boundary and would reduce the overall environmental impacts of the wind energy facility (BLM 2016).

State

No state regulations or guidelines are applicable to the proposed project.

Local

No local regulations or guidelines are applicable to the proposed project.

Applicant Proposed Measures

Although no impacts to parks or recreational facilities would occur, the following Applicant Proposed Measure (APM) would inform park and recreational users, and where applicable, this APM is referenced in the impact analysis section below.

APM REC-1 The applicant shall prepare a fact sheet about the project including a construction schedule and safety information regarding trucks and other heavy equipment on local roads. The applicant shall distribute this fact sheet to users of the Pacific Crest Trail via informational kiosk at trailheads. Additional locations may be determined by the Bureau of Land Management Authorized Officer.

The applicant shall post temporary signs at road crossings for trail users and at trail crossings for truck drivers and equipment operators during periods when increased traffic is expected.

3.16.2 Impact Analysis

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

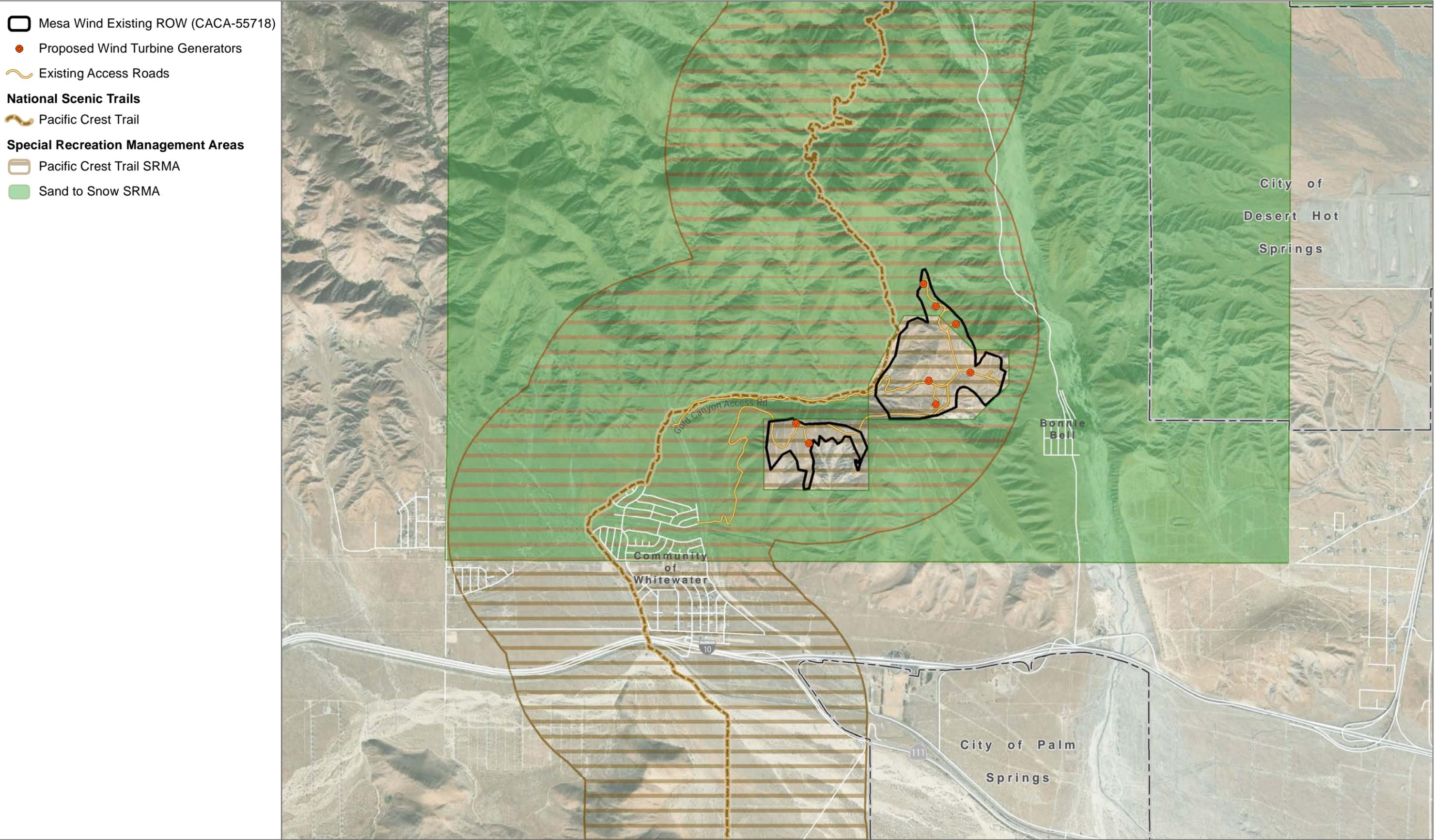
NO IMPACT. The project would not cause any increase in use of recreational facilities or parks. There are no parks within 1 mile of the project site; however, the PCT runs northwest of the project site and the nearby federal lands are used for recreation. In addition, portions of the existing off-site access roads cross the Sand to Snow SRMA. The DRECP notes that wind energy development currently exists within the Whitewater Canyon ACEC and SRMA and states that repowering or replacement of existing wind energy

facilities would be considered if the repower development remains within the existing ROW boundary and would reduce the overall environmental impacts of the wind energy facility (BLM 2016, Appendix B). Minimal temporary disturbance would be required within the SRMA associated with graded buffer areas to the existing access road to accommodate construction equipment. The temporary disturbance required within the SRMA during construction activities would be limited to areas directly adjacent to the existing off-site access road and would not affect existing recreational uses in the project area. Nevertheless, the applicant would be required to post fact sheets and temporary signs at the PCT, through implementation of APM REC-1 (refer to Section 3.16.1, under Applicant Proposed Measures), to ensure people accessing the trail are aware of temporary construction activities and minimize safety issues.

Local population would not be increased as there would be no increase in permanent positions to operate the project (refer to Section 3.14, Population and Housing). During construction, it is possible that some workers would reside in the project area temporarily, but most construction workers are expected to commute to the project site from surrounding communities. The project would not cause an increase in the use of the PCT and would not directly or indirectly cause an increase in population that would increase the use of the PCT. Subsequently, the project would not contribute to increased use of community recreational facilities. No impact would occur.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

NO IMPACT. Activities associated with the project would be limited to the construction and operation of the proposed wind energy facility. None of the proposed activities would involve the construction or expansion of recreational facilities. Therefore, the project would not contribute to an adverse physical effect on the environment associated with a recreational facility. No impact would occur.



- Mesa Wind Existing ROW (CACA-55718)
- Proposed Wind Turbine Generators
- ~ Existing Access Roads
- National Scenic Trails**
- ~ Pacific Crest Trail
- Special Recreation Management Areas**
- Pacific Crest Trail SRMA
- Sand to Snow SRMA

SOURCE: ESRI, Aspen 2020



FIGURE 3.16-1
Special Recreation Management Areas
Mesa Wind Repower Project

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3.17 Transportation

TRANSPORTATION

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

3.17.1 Setting

Existing highways and local roads would be used to transport equipment for the proposed project. Access during construction and operation would be via Interstate (I) 10 using the Haugen-Lehmann Way exit. I-10 is a major east–west interstate freeway connecting Southern California to Phoenix, Arizona, and destinations farther east. I-10 is a four-lane freeway with a posted speed limit of 70 miles per hour. In the project area, I-10 carries roughly 96,000 average daily trips, more than 21,000 of which are trucks (Caltrans 2018). After exiting the freeway, construction traffic would travel less than 2 miles on local roads (Haugen-Lehmann Way, Cottonwood Road, and Rockview Drive) to reach the main access road (refer to Figure 2-4, Off-site Construction Access Roads). Local roads in the Community of Whitewater experience very low use. The project on-site access roads would provide primary access for all equipment during site evaluation, construction, and operation, and would require radius and other improvements (i.e., widenings and grading, and potentially gravel resurfacing). The project access roads are almost entirely on land administered by the BLM, and cross approximately 1,160 feet of private land within County of Riverside (County) jurisdiction on easements. Gold Canyon Road would provide secondary access for commuter vehicles but would not be improved. The largest amount of construction vehicle traffic would likely be associated with construction workers, followed by deliveries of new wind turbine generator (WTG) components, steel, aggregate, water, electrical equipment, and other general deliveries. The construction workforce would be expected to average 150 average daily trips, with a peak of around 180 average daily trips. Truck deliveries would average 200 per week over a 6-month period.¹ Some larger trucks would be required to deliver the oversized WTG and crane components, but all access roads would be designed to accommodate larger construction equipment.

¹ Note that the average trucks per week presented here is the combined total for both the proposed project (Mesa Wind Repower Project) and the Alta Mesa Wind Project. The ideal scenario is that the proposed project would be built at the same time as the adjacent Alta Mesa Wind Project, also by the same applicant. If so, the applicant would be able to take advantage of economies of scale to bring in materials and parts for both projects at the same time.

Regulatory Background

Federal

There are no state programs, policies, or regulations related to transportation that are applicable to the proposed project.

State

California Vehicle Code

The California Department of Transportation (Caltrans) is responsible for operating and maintaining all state-owned roadways and interstate highways in California. California Vehicle Code Division 15 gives Caltrans discretionary authority to issue special permits for the movement of vehicles/loads exceeding statutory limitations on the size, weight, and loading of vehicles. A special permit issued by Caltrans is required to authorize the operation of oversize or overweight trucks, both of which would be required for implementation of the proposed project.

Senate Bill 743

In the fall of 2013, Senate Bill 743 (SB 743) was passed by the legislature and signed into law by the governor. Under SB 743, delay-based metrics such as roadway capacity and level of service are longer the performance measures used for the determination of the transportation impacts of projects in studies conducted under the California Environmental Quality Act (CEQA). Instead, new performance measures such as Vehicle Miles Traveled (VMT) will be used. SB 743 became effective on July 1, 2020.

Local

Western Coachella Valley Area Plan

The Western Coachella Valley Area Plan (County of Riverside 2019) addresses transportation relevant to the proposed project in the following policy:

WCVAP 17.1 Maintain Riverside County's roadway Level of Service standards as described in the General Plan Circulation Element.

County of Riverside General Plan

In the General Plan's Circulation Element (County of Riverside 2020), Policy C 2.4 is relevant to the proposed project.

C 2.4 The direct project related traffic impacts of new development proposals shall be mitigated via conditions of approval requiring the construction of any improvements identified as necessary to meet level of service targets.

Applicant Proposed Measures

The following Applicant Proposed Measure (APM) would reduce impacts to transportation, and where applicable, are referenced in the impact analysis section below.

APM TRA-1 Traffic Management Plan. The applicant shall prepare and implement a Traffic Management Plan that must include, but not be limited to, the following:

- Caution signs and/or flagmen to regulate traffic where necessary and to maintain a safe transportation corridor during construction.
- Provide construction notice and schedule to emergency providers and members of the Community of Whitewater a minimum of 15 days in advance of construction activities.
- List of locations of encroachment permits required from the California Department of Transportation and the County of Riverside.
- Provide confirmation following construction that roadways are returned to preconstruction level of service conditions.

The Traffic Management Plan shall be submitted to the Bureau of Land Management and Riverside County Transportation and Land Management Agency for review and approval at least 60 days prior to the start of project construction.

3.17.2 Impact Analysis

a. *Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

LESS THAN SIGNIFICANT IMPACT. Construction and future decommissioning of the project would result in workers traveling to/from the site and deliveries of equipment and materials generating temporary vehicle trips to the project area. The estimated maximum addition of 300 daily commuter trips (an average of 130 daily commuter trips during construction) and approximately 40 daily truck trips during construction would temporarily increase traffic volumes on the I-10. Given the existing daily traffic on I-10 (more than 96,000 vehicles), an additional 340 vehicles would be insignificant. For local roadways, the increase would be substantial. However, this impact would be temporary and with implementation of APM TRA-1 (refer to Section 3.17.1, under Applicant Proposed Measures), the Community of Whitewater would be given advance notice of the construction schedule. APM TRA-1 includes notices and signs to ensure that Whitewater's roads remain open and available to the public. Any oversized trucks would require permits through Caltrans and would follow all safety requirements, such as CHP escorts, flaggers, and flashing lights. The project area is not located near office uses, employment centers, or existing or future residential sites. Thus, the opportunities for alternative transportation in the area are limited and the proposed project would not impact an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, including bicycles, public transportation, and pedestrian facilities.

Operations and maintenance (O&M) of the project is expected to generate minimal daily traffic volumes, similar to the volume of traffic for the existing Mesa Wind energy facility, and would not require any temporary disruptions to travel lanes. Due to the limited nature of project construction and maintenance activities, impacts to an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system would be less than significant.

b. *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

LESS THAN SIGNIFICANT IMPACT. As discussed in CEQA Guidelines Section 15064.3(b.3), a qualitative analysis of construction traffic VMT may be appropriate. Implementation of the project would result in temporary traffic trips during construction. The majority of truck trips associated with materials and equipment deliveries would likely come from within the Palm Springs and/or Riverside–San Bernardino area because materials and equipment are readily available in the region and acquiring them locally would likely be more cost-effective than purchasing from more distant locations. Some materials trips would likely

originate from the Ports of Long Beach and Los Angeles, or potentially from other states, due to the specialized nature of the WTG equipment and the limited number of providers. Many temporary workers needed for construction of the project would reside within a 60- to 90-minute drive of the project site. This assumption is based on observations regarding worker commuting habits during construction monitoring efforts for other renewable energy and transmission projects in the California desert. However, it is likely that some specialized construction workers would come from outside a reasonable commute area and would therefore seek temporary housing near the work area.

While some construction truck trips may require high VMT to reach the project site, such trips would be necessary to deliver specialized equipment and materials that are not available locally. Due to the availability of rail lines from the ports and from out of state to the general project area, VMT may be reduced by equipment and materials being hauled via rail to closer locations before being trucked to work sites. Upon completion of construction, all worker commuter trips and truck trips would cease. O&M of the project is expected to generate minimal daily traffic volumes, and VMT is anticipated to be identical or similar to that occurring under O&M of the existing Mesa Wind energy facility. At this time, there are no known applicable VMT thresholds of significance for temporary construction trips that may indicate a significant impact. Project-related construction trips are not considered to require a substantial or sustained increase in VMT compared to regional averages for rural construction projects, nor would they result in temporary emissions increases that could impact plans and policies related to the reduction of greenhouse gas emissions by reducing VMT. Furthermore, the project applicant would recommend that the construction contractor encourage carpooling to reduce commuter VMT. Therefore, while the project may generate temporary construction trips with VMT from outside the immediate project area, these trips would not affect existing transit uses or corridors and are presumed to cause a less-than-significant transportation impact.

Once operational, the proposed project would generate 20 trips per day (5 round-trips from employees and 5 pickup truck trips for maintenance), similar to the existing wind energy facility. Because these trips would be permanent worker trips, it is assumed they would come from within the local area. As such, this nominal number of operational trips would not significantly increase total VMT for the region, nor would these trips generate higher levels of VMT than existing conditions. Therefore, project operations would not affect existing VMT levels, transit uses, or transit corridors. As such, operational VMT impacts would be less than significant.

c. *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

LESS THAN SIGNIFICANT IMPACT. Where feasible, the existing network of permanent on-site and off-site access roads would be retained and reused for the project. In addition to the existing roads, less than 1 mile of new segments of permanent maintenance roads would be constructed to provide access and circulation within the project site. Access roads would incorporate applicable federal and local standards regarding internal road design and circulation. As such, the construction of the access and maintenance roads would not increase hazards due to design features. Local roadway rights-of-way within the Community of Whitewater have been reviewed to ensure that their width is appropriate for transport of the oversized WTG equipment. All heavy equipment travel would occur within the public roadway right-of-way within an approved subdivision where the roadways have been developed. In areas where vegetation has encroached within the roadway right-of-way, it will be cleared to a width of 16 feet to allow safe vehicle travel. For all locations where the blade tips would extend beyond the public right-of-way boundaries due to roadway turning radius, easements will be executed with the applicable property owners (blade tips would only traverse airspace and not come into contact with the ground). APM TRA-1 requires

preparation of a Traffic Management Plan prior to project construction that would include a detailed review of all local roads to ensure that the project does not result in temporary incompatible uses and to ensure that the roads maintain the same or better level of service after construction. In addition, any oversized trucks would require permits through Caltrans and would follow all safety requirements, such as CHP escorts, flaggers, and flashing lights. Furthermore, the Riverside County Transportation Department would issue an encroachment permit for use of County roadways during construction. Therefore, the project would not substantially increase hazards due to geometric design features or incompatible uses and the impact would be less than significant.

d. Would the project result in inadequate emergency access?

LESS THAN SIGNIFICANT IMPACT. The project would not alter emergency access to the project site or surrounding area. Where feasible, the existing network of permanent access roads would be retained and reused for the project (from the I-10 along Haugen-Lehmann Way, Cottonwood Road, and Rockview Drive). The existing network of permanent access roads that would be used to reach the main project access roads is less than 2 miles. Desert View Drive east to the unnamed access would be the primary access road onto the project site. The project on-site access roads would provide primary access for all equipment during site evaluation, construction, and operation, and would require radius and other improvements (i.e., widenings and grading, and potentially gravel resurfacing). The project access roads are almost entirely on land administered by the BLM, and cross approximately 1,160 feet of private land within County jurisdiction on easements. The project would construct one new segment of permanent access road along the small portion of the unnamed access road (less than 0.25 miles). The project would include approximately 16-foot-wide permanent roads, with some areas widened up to 24 or 40 feet wide for appropriate turning radius, to provide access to each WTG and ancillary equipment. These roads would incorporate applicable federal and local standards regarding internal road design and circulation, particularly those provisions related to emergency vehicle access. Some local roads would be used during construction, including for transportation of oversized WTG equipment. APM TRA-1 requires the applicant to prepare a Traffic Management Plan prior to project construction, which would include notification to emergency providers of any short-term road closures and would include appropriate signage. In addition, any oversized trucks would require permits through Caltrans and would follow all safety requirements, such as CHP escorts, flaggers, and flashing lights. Therefore, project impacts to emergency access and movement of emergency access vehicles would be less than significant.

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3.18 Tribal Cultural Resources

TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
(i) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

3.18.1 Setting

Information presented in this section was gathered through Assembly Bill (AB) 52 – California Environmental Quality Act Tribal consultation requests from California Native American Tribes and through discussions with California Department of Fish and Wildlife (CDFW).

The project’s potential effects on Tribal Cultural Resources (TCRs) were evaluated using the significance criteria set forth in Appendix G of the CEQA Guidelines, with consideration also given to AB 52 and the Technical Advisory: AB 52 and Tribal Cultural Resources in CEQA (OPR 2017).

The Native American Heritage Commission provided CDFW a list of 23 Native American Tribal representatives that are traditionally and culturally affiliated with the project area. On June 23, 2020, CDFW sent AB 52 notification letters to the following Tribal Representatives:

- Jeff Grubbe, Chairperson – Agua Caliente Band of Cahuilla Indians
- Amanda Vance, Chairperson – Augustine Band of Cahuilla Indians
- Doug Welmas, Chairperson – Cabazon Band of Mission Indians
- Daniel Salgado, Chairperson – Cahuilla band of Indians
- Ralph Goff, Chairperson – Campo Band of Mission Indians
- Robert Pinto, Chairperson – Ewiiapaayp Band of Kumeyaay Indians
- Michael Garcia, Vice Chairperson – Ewiiapaayp Band of Kumeyaay Indians
- Gwendolyn Parada, Chairperson – La Posta Band of Diegueno Mission Indians
- Javaughn Miller, Tribal Administrator – La Posta Band of Diegueno Mission Indians
- Shane Chapparosa, Chairperson – Los Coyotes Band of Cahuilla and Cupeño Indians

- Angela Elliott Santos, Chairperson – Manzanita Band of Kumeyaay Nation
- Michael Linton, Chairperson – Mesa Grande Band of Diegueno Mission Indians
- Robert Martin, Chairperson – Morongo Band of Mission Indians
- Jill McCormick, Historic Preservation Officer – Quechan Tribe of the Fort Yuma Reservation
- Joseph Hamilton, Chairperson – Ramona Band of Cahuilla
- Jessica Mauck, Director of Cultural Resources – San Manuel Band of Mission Indians
- Lovina Redner, Tribal Chair – Santa Rosa Band of Cahuilla Indians
- Mark Cochrane, Co-Chairperson – Serrano Nation of Mission Indians
- Wayne Walker, Co-Chairperson – Serrano Nation of Mission Indians
- Scott Cozart, Chairperson – Soboba Band of Luiseño Indians
- Cody Martinez, Chairperson – Sycuan Band of the Kumeyaay Nation
- Thomas Torte, Chairperson – Torres-Martinez Desert Cahuilla Indians
- Darrell Mike, Chairperson – Twenty-Nine Palms Band of Mission Indians

The letters included a brief description of the proposed project, instructions on how to contact the lead agency's project manager, and a statement that responses must be received within 30 days of the date of receipt of the letter. Four responses were received from Tribal contacts who requested government-to-government consultation on the proposed project including the Fort Yuma Quechan Tribe (email dated August 31, 2020), Agua Caliente Band of Cahuilla Indians (letter dated September 4, 2020), Campo Band of Mission Indians (letter dated September 8, 2020), and Soboba Band of Luiseño Indians (letter dated September 10, 2020). The San Manuel Band of Mission Indians sent an email dated August 12, 2020, acknowledging receipt of the notification from CDFW, and indicated that the project was outside of Serrano ancestral territory. However, San Manuel Band of Mission Indians would conduct further review of their internal records and may request additional documentation during the AB 52 consultation period. The Soboba Band of Luiseño Indians, a *Culturally Affiliated Native American Tribe*, initiated AB 52 Tribal consultation with CDFW.

In-person and/or email exchanges occurred with all consulting Tribes and the cultural resources documentations was provided to Tribes who requested it. CDFW conducted remote informal consultations with the Fort Yuma Quechan Tribe on September 4, 2020, with the Campo Band of Mission Indians on September 21, 2020, and with the Soboba Band of Luiseño Indians on March 11, 2021. Based on substantial evidence provided to CDFW through consultation as required under Public Resources Code Section 5024.1, a TCR was identified as defined by Public Resources Code Section 21074(a)(1) that would potentially be subject to impacts during implementation of the proposed project.

Regulatory Background

Federal

Mandates for the federal government's unique policies and relationship with Native American Tribal governments are codified in several Executive Orders, as noted below.

Executive Order 13007, Indian Sacred Sites

This executive order, which was issued by President Clinton in 1996, directed federal agencies to accommodate access to and ceremonial use of Native American sacred sites by Native American religious practitioners, as well as to avoid adversely affecting the physical integrity of such sacred sites.

Executive Order 13175, Consultation and Coordination with Indian Tribal Governments

Issued by President Clinton in 2000, this executive order recognized Tribal rights of self-government and Tribal sovereignty and affirmed and committed the federal government to work with Native American Tribal governments on a government-to-government basis.

Antiquities Act

Preservation and protection of Native American historic resources, at least archaeological resources, dates back to at least the Antiquities Act of 1906, which is usually considered the first federal historic preservation law in the United States.

More recent federal historic preservation laws mandate Native American Tribal government involvement and consultation, as noted in the following paragraphs.

Native American Graves Protection and Repatriation Act

Passed in 1990, the Native American Graves Protection and Repatriation Act provides a process for museums and federal agencies to return certain Native American cultural items—human remains, funerary objects, sacred objects, and objects of cultural patrimony—to lineal descendants, culturally affiliated Native American Tribes, and Native Hawaiian organizations. Under Section 3 of the law, repatriation is mandated for Native American cultural items excavated or discovered on federal land after November 16, 1990.

Archaeological Resources Protection Act

Passed in 1979, the Archaeological Resources Protection Act requires federal agencies to consult with Tribal authorities before permitting archaeological excavations on Tribal lands. It also mandates the confidentiality of information concerning the nature and location of archaeological resources, including Tribal archaeological resources.

American Indian Religious Freedom Act

The American Indian Religious Freedom Act, which was passed in 1978, affirms a national policy to protect and preserve for Native Americans their inherent right of freedom to believe, express, and exercise the traditional religions of indigenous America, including protecting and preserving access to sacred sites.

National Environmental Policy Act

The National Environmental Policy Act, which was passed in 1969, calls for the federal government to invite the participation of any affected Native American Tribe in the environmental review process.

National Historic Preservation Act

The National Historic Preservation Act of 1966, as amended in 1992, enhanced Native American Tribal roles in historic preservation and created the Tribal Historic Preservation Officer program. Section 106 of the National Historic Preservation Act established federal agency obligation to consult with federally recognized Native American Tribal governments.

BLM Handbook H-1780-1: Improving and Sustaining BLM–Tribal Relations

BLM Handbook H-1780-1 (BLM Handbook) implements new administration and policies to provide comprehensive guidance concerning Tribal relations for all BLM managers and programs. This BLM

Handbook addresses a broad range of legal authorities and agency programs of interest to Tribes and highlights BLM responsibilities. It incorporates current guidance derived from recent case law, new secretarial orders and policies, executive orders, and decades of experience working with Tribes on a government-to-government basis.

State

Assembly Bill 52

AB 52, enacted in 2014, amends sections of CEQA relating to Native Americans. AB 52 establishes a new category of cultural resources called “Tribal Cultural Resources” (TCRs) and states that a project that may cause a substantial adverse change in the significance of a TCR may have a significant effect on the environment.

Section 21074 was added to the Public Resources Code to define TCRs, as follows:

- (a) Tribal cultural resources are either of the following:
- (1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
 - (A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.
 - (B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
 - (2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.
- (b) A cultural landscape that meets the criterion in Section 21074(a) is a TCR to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.
- (c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in Section 21083.2(g), or a “non-unique archaeological resource” as defined in Section 21083.2(h) may also be a TCR if it conforms with the criterion in Section 21074(a).

AB 52 requires the lead agency to begin consultation with any Tribe that is traditionally or culturally affiliated with the geographic area. In addition, AB 52 includes the following time limits for certain responses regarding consultation:

- Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice.
- After provision of the formal notification by the public agency, the California Native American tribe has 30 days to request consultation.
- The lead agency must begin the consultation process within 30 days of receiving a California Native American tribe’s request for consultation.

Public Resources Code Section 21080.3.1 states, “California Native American tribes traditionally and culturally affiliated with the geographic area of a project may have expertise concerning their tribal cultural resources.”

Applicant Proposed Measures

The following Applicant Proposed Measures (APMs) would reduce potential impacts to the known TCR and unknown subsurface TCRs, and where applicable, are referenced in the impact analysis section below. Where applicable to TCRs, the full text of the APM CUL-1 through APM CUL-4 is provided in Section 3.5, Cultural Resources.

APM TCR-1 Cultural Sensitivity Training. Prior to the commencement of ground-disturbing activities, a Cultural Sensitivity Training by the Soboba Band of Luiseño Indians shall be required for all construction personnel and project biologists. Training will include a brief description of Tribal history and cultural affiliation of the project’s location and the surrounding area; what resources could potentially be identified during earthmoving activities; the protocols that apply in the event unanticipated cultural resources or wildlife species of Tribal cultural patrimony are identified, including who to contact and appropriate avoidance measures until the impacts can be properly evaluated; and any other appropriate protocols. This is a mandatory training and all construction personnel and project biologists must attend prior to beginning work on the project site.

APM TCR-2 Tribal Monitoring. Prior to commencement of ground-disturbing activities, Mesa Wind Power Corporation shall enter into an agreement for Tribal monitoring with the Soboba Band of Luiseño Indians, a *Culturally Affiliated Native American Tribe* who has completed AB 52 Tribal consultation with California Department of Fish and Wildlife (CDFW) as provided for in Public Resources Code Section 21080.3.2(b)(1) of AB 52.

A Tribal Monitor from the Soboba Band of Luiseño Indians shall be on site during project-related ground-disturbing activities, including clearing, grubbing, tree removals, grading, and trenching. In coordination with the biological monitors, a Tribal Monitor from the Soboba Band of Luiseno Indians shall provide specific culturally related information regarding wildlife species that are of Tribal cultural patrimony. This may include but is not limited to providing recommendations for culturally appropriate methods of handling impacted species with respect to Tribal customs.

Mesa Wind Power Corporation shall also enter into an agreement for Tribal monitoring with the Agua Caliente Band of Mission Indians and the Campo Band of Mission Indians upon the request of such Tribe. Tribal Monitor(s) from these Tribes shall be on site, unless these Tribes agree otherwise, during project-related ground-disturbing activities, including clearing, grubbing, tree removals, grading, and trenching.

In conjunction with the Archaeological Monitor(s), the Tribal Monitor(s) shall have the authority to temporarily divert, redirect, or halt the ground-disturbing activities to allow identification, evaluation, and potential recovery of cultural resources. Mesa Wind Power Corporation shall submit a fully executed copy of the agreement(s) to CDFW documenting compliance with this APM. This agreement shall not modify any project mitigation measure required by CDFW or a project APM.

APM TCR-3 Unanticipated Impacts and Discoveries. In the event that wildlife species of Tribal cultural patrimony are identified or impacted, the authorized biologist shall ensure that

the biological monitor(s), in consultation with the Tribal Monitor(s), include the Tribal significance of the species in any necessary documentation. The authorized biologist must concur that all required procedures have been met before construction activities will be allowed to resume in the affected area.

In the event that previously unidentified potentially significant cultural resources are discovered, the Archaeological and/or Tribal Monitor(s) shall have the authority to divert or temporarily halt ground-disturbing operations in the area of discovery to allow evaluation of potentially significant cultural resources. The Project Archaeologist, in consultation with the Tribal Monitor(s), shall determine the significance of the discovered resources and recommend further treatment that may be necessary.

- APM CUL-1** **Archaeological Worker Environmental Awareness Program** (refer to Section 3.5 for full text of APM).
- APM CUL-2** **Archaeological Monitoring** (refer to Section 3.5 for full text of APM).
- APM CUL-3** **Procedures upon Encountering Archaeological Resources** (refer to Section 3.5 for full text of APM).
- APM CUL-4** **Treatment of Human Remains** (refer to Section 3.5 for full text of APM).

3.18.2 Impact Analysis

- a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*
- (i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?*

LESS THAN SIGNIFICANT IMPACT. Through Tribal consultation, pursuant to AB 52, CDFW has determined a TCR is present within the project site or within the 1-mile surrounding area that could be impacted during project implementation. It is also possible that previously unidentified TCRs that may be eligible for inclusion in the California Register of Historical Resources or in local registers could be discovered and damaged or destroyed during construction-related ground disturbance, which would constitute a significant impact absent mitigation. To minimize potential impacts to the known TCR and unknown subsurface TCRs during proposed ground-disturbing activities, the project applicant will implement APM TCR-1 (Cultural Sensitivity Training), APM TCR-2 (Tribal Monitoring), and APM TCR-3 (Unanticipated Impacts and Discoveries). In addition to TCR-specific APMs, the applicant would implement APM CUL-1 through APM CUL-4, which generally reduce potential impacts related to cultural resources (refer to Section 3.5.1, under Applicant Proposed Measures). Therefore, with incorporation of these APMs during project implementation, potential inadvertent impacts associated with the disturbance of the known TCR and unknown subsurface TCRs would be less than significant.

(ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

LESS THAN SIGNIFICANT IMPACT. A known TCR was identified within the project site or within the 1-mile surrounding area during CEQA Tribal consultation and determined by the lead agency to qualify as a TCR. To minimize potential impacts to the identified TCR during ground-disturbing activities, the project applicant will implement APM TCR-1 through APM TCR-3 as well as APM CUL-4 (refer to Section 3.5.1). Prior to initiation of project construction, APM TCR-1 requires all construction workers to complete a Cultural Sensitivity Training presented by the Soboba Band of Luiseño Indians. Tribal Monitor(s) from the Soboba Band of Luiseño Indians—and upon the request of the Agua Caliente Band of Cahuilla Indians or the Campo Band of Mission Indians, Tribal Monitor(s) from the Agua Caliente Band of Cahuilla Indians and the Campo Band of Mission Indians—must be present during ground-disturbing construction activities through implementation of APM TCR-2, as requested during Tribal consultation with Native American Tribes and discussions with CDFW. APM TCR-3 outlines required procedures that must be implemented upon unanticipated discovery of cultural resources and wildlife species of Tribal cultural patrimony. In addition, APM CUL-4 addresses treatment of human remains. Therefore, with incorporation of these APMs into the project design and implementation of APM TCR-1 through APM TCR-3, as well as APM CUL-4, potential inadvertent impacts associated with the disturbance of TCRs during project implementation would be less than significant.

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3.19 Utilities and Service Systems

UTILITIES AND SERVICE SYSTEMS

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

3.19.1 Setting

The project site is located in the San Gorgonio Pass in unincorporated Riverside County. The closest development is the community of Bonnie Bell, which is approximately 0.65 miles (3,450 feet) to the southeast. Water is provided to the project site from a well located on site. The groundwater aquifer that the well draws from is the Coachella Valley Groundwater Basin, which has a capacity of 36,500,000 acre-feet.

Sanitary waste/wastewater generated from the operations and maintenance (O&M) facility goes into a septic field located on site. The primary type of other typical solid waste generated on site is nonhazardous waste such as rags, empty containers, scrap metal, and machine parts. There is also a small amount of hazardous waste generated, such as hydraulic control fluid and transformer oil.

The Decommissioning Plan for the existing Mesa Wind Project specifies removal of existing 460 wind turbine generators (WTGs) and foundations from the site, details how to handle ground disturbance, describes restoration of the site, and defines how to handle the waste that is generated from decommissioning. Decommissioning of existing WTGs is anticipated to be completed by mid-2021.

Regulatory Background

Federal

Wind Energy Development Policy

The U.S. Department of the Interior Bureau of Land Management issued on August 24, 2006 (later updated December 22, 2008), a Wind Energy Development Policy (IM No. 2009-043; BLM 2008). In response to the

Wind Energy Development Programmatic Environmental Impact Statement of June 2005, the policy clarifies the BLM Wind Energy Development policies and BMPs provided in the Wind Energy Development Programmatic Environmental Impact Statement of June 2005. Issuance of this policy ensures BLM-wide consistency in the processing of right-of-way application and the management authorizations for wind energy development on public lands.

40 USC, Part 112 – Oil Pollution Prevention

Oil pollution prevention regulations require the preparation of a spill prevention, control, and countermeasures (SPCC) plan if oil in excess of 1,320 gallons is stored in aboveground storage (or if the storage has a buried capacity of 42,000 gallons). SPCC regulations place restrictions on the management of petroleum materials, including cleanup of incidental spills to avoid impacts to stormwater.

An SPCC plan has been developed in accordance with federal regulations to protect the environment from petroleum spills. To minimize risk, fuel is kept on site only as long as it is needed. If hazardous materials are spilled, the SPCC plan specifies that the incident is to be documented and submitted to BLM and other federal or state agencies. The SPCC plan would be updated to accommodate the proposed project (see APM HAZ-2 in Section 3.9, Hazards and Hazardous Materials).

Solid Waste Disposal Act and Resource Conservation and Recovery Act

The Solid Waste Disposal Act of 1965 (as amended and revised by the Resource Conservation and Recovery Act [RCRA] of 1976) establishes requirements for the management of solid waste. RCRA gives the U.S. Environmental Protection Agency the authority to control hazardous waste, including the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also sets a framework for the management of nonhazardous solid waste. The 1986 amendments to RCRA enable the U.S. Environmental Protection Agency to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

State

California Integrated Waste Management Act of 1989

This act, also known as Assembly Bill (AB) 939, administered by the California Department of Resources Recycling and Recovery (CalRecycle; formerly California Integrated Waste Management Board [CIWMB]), requires all local and county governments to adopt a Source Reduction and Recycling Element to identify means of reducing the amount of solid waste sent to landfills. AB 939 was adopted in an effort to reduce the volume and toxicity of solid waste that is disposed of in landfills and incinerated by requiring local governments to prepare and implement plans to improve the management of waste resources.

AB 939 requires each of the cities and unincorporated portions of counties throughout the state to divert a minimum of 25% of the solid waste disposed of in landfills by 1995, and to divert a minimum of 50% by 2000. To attain these goals for reductions in disposal, AB 939 establishes a planning hierarchy using new integrated solid waste management practices.

California Solid Waste Reuse and Recycling Access Act of 1991

Also known as AB 1327, this law added Chapter 18 to Part 3 of Division 30 of the California Public Resources Code. Chapter 18 required CIWMB (now known as CalRecycle) to develop a model ordinance for adoption by local agencies, to govern adequate areas for collection and loading of recyclable materials in development projects.

The Construction and Demolition Waste Materials Diversion requirement established in 2002 (Senate Bill 1374) requires that jurisdictions include a summary of the progress made in diverting construction and demolition waste in their annual AB 939 report.

Mandatory Diversion and Recycling

Approved in 2011, the Mandatory Diversion and Recycling Act (AB 341) amended the California Public Resources Code (Section 42649 et seq.) to address solid waste diversion (i.e., recycling) targets to decrease the amount of wastes going to landfills, thus extending the usable lives of the landfills. AB 341 requires cities and counties, including the County of Riverside (the County), to include source reduction, recycling, and composting in their integrated waste management plans. In addition, under AB 341 counties were required to “divert 50% of all solid waste from landfill disposal or transformation [e.g., incineration] by January 1, 2000, through source reduction, recycling and composting activities.” By 2020, the target rises to “not less than 75% of solid waste.”

Local

Countywide Integrated Waste Management Plan

The Countywide Integrated Waste Management Plan was prepared in accordance with the California Integrated Waste Management Act of 1989, Chapter 1095 (AB 939). The Countywide Integrated Waste Management Plan outlines and codifies the goals, policies, and programs the County of Riverside and its cities are implementing to create an integrated and cost-effective waste management system that complies with the provisions of AB 939 and its diversion mandates.

Applicant Proposed Measures

The following Applicant Proposed Measure (APMs) would reduce impacts relating to utilities and service systems, and where applicable, are referenced in the impact analysis below. The full text of the of APMs is provided in Section 3.10, Hydrology and Water Quality, and Section 3.9, Hazards and Hazardous Materials.

APM WATER-1 Water Supply Commitment Letter (refer to Section 3.10.1 for full text of APM).

APM WATER-2 Groundwater Monitoring Plan (refer to Section 3.10.1 for full text of APM).

APM HAZ-1 Hazardous Materials Business Plan (refer to Section 3.9.1 for full text of APM).

APM HAZ-2 Spill Prevention, Control, and Countermeasures Plan (refer to Section 3.9.1 for full text of APM).

3.19.2 Impact Analysis

a. *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

LESS THAN SIGNIFICANT IMPACT. It is estimated that the project would need 13.3 million gallons of water during construction and 7,300 gallons per year for O&M. During construction, wastewater generation would be limited to construction workers and would be contained within portable toilet facilities or at approved public facilities, both of which would dispose of wastewater with the local treatment provider. During operation, the project would not generate any increased volumes of wastewater requiring treatment because there would be no increase in the number of full-time employees on site and wastewater would be disposed of within the on-site septic system. Existing water use for ongoing

operations is an estimated 7,300 gallons per year for toilets and the septic system that serves the permanent O&M staff. With implementation of the project, there would be no increase in permanent O&M staff and water use associated with toilets and the septic system would be the same as compared to existing conditions (7,300 gallons per year). As such, the project would continue to generate the same amount of wastewater as under existing conditions, would be disposed of in the on-site septic system, and would not require new or expanded wastewater facilities. Water used for toilets and the septic system during project operation would be obtained from the well that is currently used on the project site.

Construction and some maintenance/repair activities would require the temporary use of water for dust suppression, equipment washdown, soil compaction, and other miscellaneous uses (such as concrete or grout production). During construction, water would be obtained from off-site sources, and a will-serve letter from a water purveyor would be submitted to BLM prior to the start of construction (APM WATER-1; refer to Section 3.10, Hydrology and Water Quality). Furthermore, if water from the on-site well would be used, a Groundwater Monitoring Plan would be prepared (APM WATER-2; refer to Section 3.10, Hydrology and Water Quality). Water for construction of the proposed project would not require the extension of water lines and would be brought in by truck. This water use would be temporary and would not require quantities that would result in the need for construction of new or expanded water facilities.

The project site is located on mountainous terrain intersected by small local drainages that convey stormwater. The project would involve construction of new WTGs, permanent access roads, collection lines to the new WTGs, and other improvements, any of which could alter drainage flows through the project site. However, the project would result in the construction of eight new WTGs, which would result in an overall reduction in the number of aboveground structures that could impede or alter runoff or stormwater flows as compared to existing conditions. Additionally, the construction of access roads could alter drainage flows. However, roads would be constructed of pervious materials (e.g., gravel) and would cross existing waterways and drainages in the same location as the existing access roads, to the extent feasible. While some of the new WTGs and access roads may have minimal impacts on existing drainage courses, these effects would be localized and would not result in wholesale impedance of stormwater flows across the project site. As such, new or expanded stormwater drainage facilities would not be required as a result of the proposed project.

Construction and operation of the proposed wind energy facilities would not directly require new or expanded electrical, natural gas, or telecommunication facilities. The proposed project would not induce population growth or other facilities that may place increased demands on these utility services, as the project would produce the same amount of wind energy as under existing conditions and would not create new permanent employment opportunities in the area (see Section 3.14, Population and Housing). Thus, the project would not result in demand for electricity, natural gas, communication systems, street lighting, or other services to a level that construction of new or expansion of existing facilities and services would be required.

Activities involved with construction of the project and associated infrastructure (e.g., access roads and staging areas) would require ground disturbance and the use of heavy machinery associated with grading, site work, and other construction and maintenance activities. However, these activities are part of the project analyzed herein. As such, any potential temporary or ongoing environmental impacts related to construction of the wind energy facility have been accounted for and analyzed as part of the impact assessment conducted for the entire project. Additionally, the project would be required to comply with all regulatory requirements, best management practices, APMs, and mitigation measures for the purposes of reducing impacts associated with trenching, grading, site work, and the use of heavy machinery. No adverse physical effects beyond those already disclosed and offset in this Initial Study would occur as a

result of construction and operation of the project. Therefore, impacts related to construction or relocation of service utilities would be less than significant.

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

LESS THAN SIGNIFICANT IMPACT. There would be no foreseeable future development related to the project that would increase the amount of water required other than what is needed for construction, operation and maintenance, and decommissioning of the project as proposed. It is estimated that the project would need 13.3 million gallons of water during construction and 7,300 gallons per year for operations and maintenance. Construction and some maintenance/repair activities would require the temporary use of water for dust suppression, equipment washdown, soil compaction, and other miscellaneous uses (such as concrete or grout production). During construction, water would be obtained from off-site sources and hauled in by truck, and a will-serve letter from a water purveyor would be submitted to BLM prior to the start of construction (APM WATER-1). Construction water use would be temporary, and it is not anticipated that quantities would exceed currently available water supplies during normal and dry years.

Furthermore, because water would be obtained from the on-site well for operations and maintenance, a Groundwater Monitoring Plan would be prepared (APM WATER-2) to ensure water levels would not be significantly reduced. The amount of water withdrawn from the aquifer (up to 7,300 gallons per year) is a small percentage of the 36.5 million acre-feet capacity. The project would not induce population growth or require other facilities that may place increased demands on water supplies. As such, upon receipt of a will-serve letter from a water purveyor (APM WATER-1), and with implementation of a Groundwater Monitoring Plan (APM WATER-2), less than significant impacts would occur.

c. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

LESS THAN SIGNIFICANT IMPACT. As discussed above under Threshold (a), wastewater generation for construction workers would be contained either within portable toilet facilities or at approved public facilities, both of which would dispose of wastewater with the local treatment provider. This would result in a minor temporary increase in wastewater during construction. During operation, wastewater from the minimal number of full-time employees would be disposed of within the on-site septic system. Due to the temporary and short-term nature of the proposed construction activities and the minimal amount of wastewater expected to be generated by employees during operation, the volume of wastewater generated would not impact the capacity of wastewater treatment providers serving the project area. The project would not necessitate connection to the municipal sewer system, and no off-site wastewater treatment would be required. Therefore, impacts associated with the wastewater treatment requirements or facilities, capacities, or supplies would be less than significant.

d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

LESS THAN SIGNIFICANT. The project involves construction, operation, and decommissioning of up to eight new WTGs. The amount of waste generated by construction and operation of the project would be guided by the Hazardous Materials Business Plan, which would be updated for the project (APM HAZ-1) and would address both non-hazardous and hazardous waste. The Hazardous Materials Business Plan shall incorporate BLM wind energy program policies and BMPs, including SPCC procedures; emergency communications and equipment; and employee training (refer to Section 3.9). Waste generated during

construction and operation of the project would be limited and is not expected to impact daily capacities or overall capacity of any landfill or waste disposal facility. Construction of the project would generate up to 300 cubic yards (81 tons) of waste materials. Consistent with applicable County regulations, a portion of construction waste would be diverted from the landfill, as some would be recovered and salvaged as designated recyclable and reusable materials. Once operational, the project would not result in any substantial solid waste disposal needs and would be consistent with existing operational waste levels.

The eight new WTGs would be decommissioned at the end of their estimated 30-year useful life. At that time, the eight WTGs would be removed from the project site to an approved disposal facility and foundations would be removed to one foot below the ground surface and backfilled with native soil. The substation, O&M facilities, meteorological tower, and overhead poles would be removed. All underground power cables and communication lines would be abandoned in place to avoid any additional ground disturbance. To the extent feasible, the metal towers and substation components, WTG blades, wooden poles, concrete foundations, gravel, etc. would be recycled or repurposed off site. Other miscellaneous waste would be brought to a local landfill. Volumes of miscellaneous waste during project decommissioning would be comparable to construction of the project (300 cubic yards [81 tons]). Decommissioning of the eight new WTGs at the end of the life of the project would generate approximately 540 cubic yards (146 tons) of waste.

Solid waste that cannot be diverted would likely be taken to the landfills operated by the County. Based on proximity to the project site, the solid waste generated by the project would likely be disposed of at existing landfills in the County, as there are multiple landfills with remaining capacity that are anticipated to operate beyond the functional life of the project. For instance, the Blythe Sanitary Landfill has a maximum permitted throughput of 400 tons per day, a remaining capacity of 3.8 million cubic yards, and is anticipated to operate until 2047 (CalRecycle 2016). The Desert Center Sanitary Landfill has a maximum permitted throughput of 60 tons per day, a remaining capacity of 127,414 cubic yards, and is anticipated to operate until 2107 (CalRecycle 2018). In addition, any hazardous materials found within the eight WTG structures during project decommissioning would be removed, transported, and disposed of according to all applicable laws and regulations (refer to Section 3.9). As such, the project would not exceed waste capacities at nearby landfills, and impacts would be less than significant.

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

LESS THAN SIGNIFICANT IMPACT. The project would comply with the Riverside County Source Reduction and Recycling Element (County of Riverside 1992). Applicable materials would be resold or refurbished, then recycled if possible, and the rest of the material would be disposed of in the appropriate scrap or waste facilities. Some waste generated during construction and maintenance would be green waste (vegetation) and recyclable (e.g., plastic, aluminum, and other metals). If any of the waste for disposal is identified as hazardous, it would be managed by a certified hazardous waste transporter (refer to Section 3.9). This applies to all stages of the project. Therefore, solid waste generated during construction, O&M, and decommissioning of the project would be properly disposed of in a manner that complies with federal, state, and local statutes and regulations. The project would result in less than significant impacts.

3.20 Wildfire

WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, **would the project:**

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

3.20.1 Setting

Regional Setting. The presence of dense, dry fuels and a warm, arid climate characterizes southern California as having one of the most fire-prone landscapes in the world. Factors influencing wildfire behavior and magnitude include (but are not limited to) forest structure, fuel conditions, terrain, climate, weather, and ignition sources. Weather is one of the most significant biophysical factors of wildfire behavior. Wet winters and dry summers with mild seasonal changes characterize the Southern California climate. The summer months of southern California are arid and warm, with very little precipitation. This climate pattern is occasionally interrupted by extreme periods of hot weather, drought, winter storms, or dry, easterly Santa Ana winds. Drought and Santa Ana winds are unique weather conditions that occur in Southern California that drive catastrophic wildfires. Santa Ana winds bring hot, dry desert air from the east into the region during late summer and fall, which increases wildland fire hazards during these seasons. Dry vegetation, low humidity, and high air temperature can combine to produce large-scale fire events. As Santa Ana winds blow westward toward denser development, fires driven by these winds have the potential to result in a greater risk of property damage. Much of Riverside County is considered to be at risk from wildfires (County of Riverside 2019a).

Project Setting

Fire Hazard Severity Zones

The California Department of Forestry and Fire Protection (CAL FIRE) is responsible for mapping fire hazard areas throughout the state and provides these maps through the Fire and Resource Assessment Program (FRAP) database. As depicted in these maps, wildfire suppression and prevention responsibility is geographically divided by Federal, State, and Local Responsibility Area and further categorized into Fire Hazard Severity Zones (FHSZs), which are ranked as moderate, high, and very high. FHSZs are determined by a region’s land cover, vegetation, terrain, climate, fire history, and several other factors that contribute to the fire environment. This information is provided to the public and local agencies to incorporate the fire hazard mapping into local planning efforts. The County has adopted a fire hazard map in the County

of Riverside General Plan (General Plan) Safety Element (County of Riverside 2019a, Figure S-11). As shown on Figure 3.20-1, Fire Hazard Severity Zones, the project area consists of land designated as moderate to very high FHSZs within State and Federal Responsibility Areas. The land underlying the project site primarily consists of Federal Responsibility Areas designated as very high FHSZ (at the sites of the six northernmost wind turbine generators [WTGs]) and moderate FHSZ (at the sites of the two southernmost WTGs and the meteorological [met] tower), while the southernmost access roads extend into State Responsibility Areas designated as moderate FHSZs. The areas to the west and south/southeast of the project site are State Responsibility Areas that are designated as moderate FHSZs. Areas to the north and northeast of the project site are Federal Responsibility Areas designated as very high FHSZs (County of Riverside 2019a; CAL FIRE 2007).

Land Cover and Vegetation

The project area is rural, open space that is sparsely populated. The nearest development is located in the communities of Bonnie Bell, approximately 0.65 miles to the southeast of the project site, and Whitewater, approximately 1 mile to the southwest; the nearest residence is located in Bonnie Bell approximately 3,450 feet away from the nearest WTG. As identified during field surveys conducted for the project, vegetation communities within the project site primarily consist of woodland, shrub, and scrub habitats (e.g., brittlebush scrub, California juniper woodland, California sagebrush, creosote bush, California buckwheat scrub, and desert willow woodland; refer to Appendix C-1, Biological Resources Technical Report, for a full list of plant species in the project area), as well as several non-native and invasive plant species, particularly in the mustard family (e.g., Sahara mustard [*Brassica tournefortii*], shortpod mustard [*Hirschfeldia incana*]) and grass family (e.g., slender wild oat [*Avena barbata*], red brome [*Bromus madritensis ssp. rubens*], cheat grass [*Bromus tectorum*], and Mediterranean schismus [*Schismus barbatus*]). In addition, wildland fuel is abundant in the San Bernardino National Forest area, which is located directly north/northwest of the project site and contains dense vegetation on the slopes of the mountains. The foothills that lead to the elevated mountainous terrain are located adjacent to the project site, presenting the potential for fast-moving wildland fires that could transition into the dense fuel beds and tree canopies of the San Bernardino National Forest.

Emergency Response

Emergency fire response to the project site would be expected to come from BLM Fire and/or the Riverside County Fire Department (RCFD). Through the statewide mutual aid system, agencies can rely on a collaborative response to fire and emergency situations. This system exists to ensure that adequate resources, facilities, and other supports are provided to jurisdictions whenever resources prove to be inadequate for a given situation. Each jurisdiction controls its own personnel and facilities, but can give and receive help whenever needed.

BLM Fire has a station located approximately 13 miles northeast at 9800 Black Rock Canyon Road, Yucca Valley, California. The nearest RCFD fire stations to the project site are Desert Hot Springs Station 36 (11535 Karen Avenue, Desert Hot Springs, California), approximately 5 miles to the northeast, and Cabazon Station 24 (50382 Irene Street, Cabazon, California), approximately 5.7 miles southwest of the project site. In the event of a nearby wildfire, fire protection services could come from a combination of federal (U.S. Forest Service, BLM), state (CAL FIRE), and local (RCFD) fire agencies.

The Riverside County Emergency Management Department works to provide an all-hazards approach to emergency management (County of Riverside 2020a). The Emergency Management Department is responsible for writing, reviewing, and updating the Riverside County Emergency Operations Plan. The Emergency Operations Plan, last updated in 2019, is designed to be a reference tool for coordinating

emergency response and recovery operations in the County (County of Riverside 2019b). In addition, many cities within the County have their own emergency response plans.

The Emergency Operations Plan describes various hazard situations that may arise in the County. Earthquakes, wildland fire, and flooding are the most common incidents in the County, followed by electric and communication failure and utility outages (County of Riverside 2019b).

Furthermore, Policy C 3.24 of the County's General Plan Circulation Element (County of Riverside 2020b) requires the provision of safe and efficient routes for emergency vehicles. In the event of an emergency requiring evacuation and emergency vehicle access, the Riverside County Sheriff's Department, in collaboration with the Transportation and Land Management Agency, city law enforcement, California Department of Transportation (Caltrans), and California Highway Patrol, would establish evacuation routes.

Regulatory Background

Federal

National Fire Protection Association Codes, Standards, Practices, and Guides

National Fire Protection Association codes, standards, recommended practices, and guides are developed through a consensus standards development process approved by ANSI. This process brings together professionals representing varied viewpoints and interests to achieve consensus on fire and other safety issues. National Fire Protection Association standards are recommended guidelines and nationally accepted good practices in fire protection but are not law or "codes" unless adopted as such or referenced as such by the California Fire Code (CFC) or the Local Fire Agency.

Federal Wildland Fire Management Policy

The Federal Wildland Fire Management Policy was developed in 1995 and updated in 2001 and again in 2009 by the National Wildfire Coordinating Group, a federal multi-agency group that establishes consistent and coordinated fire management policy across multiple federal jurisdictions. An important component of the Federal Wildland Fire Management Policy is the acknowledgment of the essential role of fire in maintaining natural ecosystems. The Federal Wildland Fire Management Policy and its implementation are founded on the following guiding principles:

- Firefighter and public safety are the first priority in every fire management activity.
- The role of wildland fire as an essential ecological process and natural change agent will be incorporated into the planning process.
- Fire management plans, programs, and activities support land and resource management plans and their implementation.
- Sound risk management is a foundation for all fire management activities.
- Fire management programs and activities are economically viable, based upon values to be protected, costs, and land and resource management objectives.
- Fire management plans and activities are based upon the best available science.
- Fire management plans and activities incorporate public health and environmental quality considerations.
- Federal, state, tribal, local, interagency, and international coordination and cooperation are essential.

Standardization of policies and procedures among federal agencies is an ongoing objective.

National Fire Plan

The National Fire Plan was a presidential directive in 2000 as a response to severe wildland fires that had burned throughout the United States. The National Fire Plan focuses on reducing fire impacts on rural communities and ensuring sufficient firefighting capacity in the future. It is a long-term investment that will help protect natural resources in addition to communities, as well as a long-term commitment based on cooperation and communication among federal agencies, states, local governments, Tribes, and interested members of the public. Five key areas are addressed under the National Fire Plan: Firefighting and Preparedness, Rehabilitation and Restoration, Hazardous Fuels Reduction, Community Assistance, and Accountability.

International Fire Code

Created by the International Code Council, the International Fire Code (IFC) addresses a wide array of conditions hazardous to life and property including fire, explosions, and hazardous materials handling or usage (although it is not a federal regulation, but rather the product of the International Code Council). The IFC emphasizes prescriptive and performance-based approaches to fire prevention and fire protection systems. Updated every 3 years, the IFC uses a hazards classification system to determine the appropriate measures (often including construction standards and specialized equipment) to be incorporated in order to protect life and property. The IFC uses a permit system (based on hazard classification) to ensure that required measures are instituted.

Federal Energy Regulatory Commission Standards

The Federal Energy Regulatory Commission requires utilities to adopt and maintain minimum clearance standards between vegetation and transmission voltage power lines. These clearances vary depending on voltage. In most cases, the minimum clearances required in state regulations are greater than the federal requirement. In California for example, the state has adopted General Order 95 rather than the North American Electric Reliability Corporation (NERC) Standards as the electric safety standard for the state. Federal Energy Regulatory Commission standards are not discussed further.

North American Electric Reliability Corporation Standards

NERC is a nonprofit corporation comprising 10 regional reliability councils. The overarching goal of NERC is to ensure the reliability of the bulk power system in North America. To achieve its goal, NERC develops and enforces reliability standards, monitors the bulk power systems, and educates, trains, and certifies industry personnel (NERC 2020). NERC FAC 003-4 is a Federal Energy Regulatory Commission-approved standard implemented to eliminate transmission outages and resulting blackouts due to vegetation contact. The standard applies to transmission line voltages operating at 200 kilovolts and higher and certain lower-voltage transmission lines identified as critical by the Western Electricity Coordinating Council. NERC FAC 003-4 applies to all utilities across the United States and directs them to manage vegetation clearances between trees and power lines to ensure the reliable operation of the transmission system.

National Electric Safety Code 2017

The National Electric Safety Code covers basic provisions related to electric supply stations, overhead electric supply and communication lines, and underground electric supply and communication lines. The code also contains work rules for construction, maintenance, and operational activities associated with electric supply and communication lines and equipment. The code, which must be adopted by states on an individual basis, is not applicable in the State of California. As stated previously, the State of California

has adopted its own standard (General Order 95) rather than a general national standard. The National Electric Safety Code is not discussed further.

Institute of Electrical and Electronics Engineers Standards 516-2009

The Institute of Electrical and Electronics Engineers is a leading authority in setting standards for the electric power industry. Standard 516-2009, Guide for Maintenance Methods on Energized Power Lines, establishes minimum vegetation-to-conductor clearances in order to maintain electrical integrity of the electrical system.

State

California Strategic Fire Plan

The 2019 Strategic Fire Plan for California reflects CAL FIRE's focus on (1) fire prevention and suppression activities to protect lives, property, and ecosystem services and (2) natural resource management to maintain the state's forests as a resilient carbon sink to meet California's climate change goals and to serve as important habitat for adaptation and mitigation. The Strategic Fire Plan for California provides a vision for a natural environment that is more fire resilient; buildings and infrastructure that are more fire resistant; and a society that is more aware of and responsive to the benefits and threats of wildland fire; all achieved through local, state, federal, tribal, and private partnerships (CAL FIRE 2019).

California Government Code

California Government Code Sections 51175 through 51189 provide guidance for classifying lands in California as fire hazard areas and requirements for management of property within those lands. CAL FIRE is responsible for classifying FHSZs based on statewide criteria and makes the information available for public review. Furthermore, local agencies must designate, by ordinance, very high FHSZs within their jurisdiction based on the recommendations of CAL FIRE.

California Code of Regulations

California Fire Code

The CFC is Chapter 9 of Title 24 of the California Code of Regulations. It was created by the California Building Standards Commission and is based on the IFC. It is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The CFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The CFC and the California Building Code use a hazards classification system to determine what protective measures are required to protect fire and life safety. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, the CFC employs a permit system based on hazard classification. The CFC is updated every 3 years.

California Public Resources Code

California Public Resources Code, Section 4292, states that a minimum firebreak of 10 feet in all directions from the outer circumference of a pole or tower be established around any pole that supports a switch, transformer, lightning arrester, line junction, or end or corner pole. All vegetation shall be cleared within the firebreak.

California Public Resources Code, Section 4293, establishes the minimum vegetation clearance distances (between vegetation and energized conductors) required for overhead transmission line construction. Minimum clearances are discussed as follows:

- A minimum radial clearance of 4 feet shall be established for any conductor of a line operating at 2,400 or more volts but less than 72,000 volts.
- A minimum radial clearance of 6 feet shall be established for any conductor of a line operating at 72,000 or more volts but less than 110,000 volts.
- A minimum radial clearance of 10 feet shall be established for any conductor of a line operating at 110,000 or more volts but less than 300,000 volts.
- A minimum radial clearance of 15 feet shall be established for any conductor of a line operating at 300,000 or more volts.

Specific requirements applicable to the construction and operation of the proposed project include those from California Public Resources Code, Division 4, Chapter 6:

- Section 4427 – Operation of fire-causing equipment.
- Section 4428 – Use of hydrocarbon-powered engines near forest, brush, or grass-covered lands without maintaining firefighting tools.
- Section 4431 – Gasoline-powered saws and firefighting tools.
- Section 4442 – Measures, requirements, and exemptions for spark arresters.

California Department of Forestry and Fire Protection

CAL FIRE is tasked with reducing wildfire-related impacts and enhancing California's resources. CAL FIRE responds to all types of emergencies, including wildland fires and residential/commercial structure fires. In addition, CAL FIRE is responsible for the protection of approximately 31 million acres of private land within the state and, at the local level, is responsible for inspecting defensible space around private residences. CAL FIRE is responsible for enforcing State of California fire safety codes included in the California Code of Regulations and the California Public Resources Code. Section 1254 of the California Environmental Quality Act (CEQA) Guidelines identifies minimum clearance requirements required around utility poles.

CAL FIRE also inspects utility facilities and makes recommendations regarding improvements in facility design and infrastructure. Joint inspections of facilities by CAL FIRE and the utility owner are recommended by CAL FIRE so that each entity may assess the current state of the facility and successfully implement fire prevention techniques and policies. Violations of state fire codes discovered during inspections are required to be brought into compliance with the established codes. If a CAL FIRE investigation reveals that a wildfire occurred as a result of a violation of a law or negligence, the responsible party could face criminal and/or misdemeanor charges (CAL FIRE 2020). For cases where a violation of a law or negligence has occurred, CAL FIRE has established the Civil Cost Recovery Program, which requires parties liable for wildfires to pay for wildfire-related damages.

CAL FIRE maps FHSZs based on fuel loading, slope, fire history, weather, and other relevant factors as directed by California Public Resources Code, Sections 4201–4204, and California Government Code Sections 51175–51189. FHSZs are ranked from moderate to very high and are categorized for fire

protection within a Federal Responsibility Area, State Responsibility Area, or Local Responsibility Area under the jurisdiction of a federal agency, CAL FIRE, or local agency, respectively.

CPUC General Order 95: Rules for Overhead Transmission Line Construction

California Public Utilities Commission (CPUC) General Order 95 governs the design, construction, and maintenance of overhead electrical lines. Rule 31.1 generally states that this should be done in accordance with accepted good practices for the given location conditions known at the time by the persons responsible for the design, construction, and maintenance of the overhead electrical lines and equipment. Rule 35 of General Order 95 (Tree Trimming) requires the following:

- Four-foot radial clearances for any conductor of a line operating at 2,400 volts or more, but less than 72,000 volts
- Six-foot radial clearances for any conductor of a line operating at 72,000 volts or more, but less than 110,000 volts
- Ten-foot radial clearances for any conductor of a line operating at 110,000 volts or more, but less than 300,000 volts (this would apply to the proposed project)
- Fifteen-foot radial clearances for any conductor of a line operating at 300,000 volts or more

CPUC Fire Threat Zones

In 2018, CPUC approved a statewide Fire-Threat Map (CPUC 2019), which delineates a High Fire-Threat District and is intended to assist with implementation of new fire prevention rules. The map delineates areas in the state where there is an elevated risk and an extreme risk (including likelihood and potential impacts on people and property) from utility-associated wildfires. The Fire-Threat Map helps prioritize fire hazard areas to allow for implementation of new fire-safety regulations adopted by the CPUC in December 2017. Electric investor-owned utilities must file an annual report that contains a fire-prevention plan containing specified information for its overhead electric facilities in the High Fire-Threat District. Increased vegetation management and new fire regulations also apply to the High Fire-Threat District.

Mutual Aid Agreements

There are multiple regional, state, and local agreements and operating plans currently in use that provide for mutual aid between and among federal, state, and local fire agencies. The statewide mutual aid system exists to ensure that adequate resources, facilities, and other supports are provided to jurisdictions whenever resources prove to be inadequate for a given situation. Each jurisdiction controls its own personnel and facilities but can give and receive help whenever needed.

Local

Western Coachella Valley Area Plan

The following policy from the Western Coachella Valley Area Plan (County of Riverside 2019c) addresses wildland fire hazards:

- WCVAP 25.1** Protect life and property from wildfire hazards through adherence to the Fire Hazards section of the General Plan Safety Element.

County of Riverside General Plan

The General Plan's Safety Element (County of Riverside 2019a) contains a section on Fire Hazards, which addresses building code and performance standards, as well as wind-related hazards, and long-range fire safety planning. These sections include lists of policies to support the effort, such as preventive measures, development guidelines, and response time expectations.

Applicant Proposed Measures

The following Applicant Proposed Measures (APMs) would be implemented to reduce impacts related to wildfire, and where applicable, are referenced in the impact analysis below:

APM FIRE-1 Construction Fire Prevention Plan. Prior to the start of any construction activities (e.g., prior to the use of vehicles or mechanical equipment on site), the applicant (in coordination with its contractors) shall prepare a Construction Fire Prevention Plan for review and approval by the Bureau of Land Management (BLM) and Riverside County Fire Department (RCFD) that includes (but would not be limited to) the following information along with provisions to be implemented during construction:

- Responsibilities of the project applicant, its contractor(s), BLM, and RCFD with respect to fire prevention and inspection of work areas
- On-site personnel in charge of overseeing Construction Fire Prevention Plan implementation
- Emergency communication, response, and reporting procedures
- Procedures for minimizing potential ignition, including, but not limited to, vegetation clearing, parking requirements/restrictions, idling restrictions, smoking restrictions, proper use of gas-powered equipment, use of spark arresters, and hot work restrictions
- Construction staff and equipment that can be used for fighting fire
- Worker training for fire prevention, initial attack firefighting, and fire reporting
- Identification of fire suppression equipment to be maintained in work areas and staging areas
- Emergency measures for construction curtailment
- Provisions for fire/emergency services access if roadway blockage occurs during construction and operation
- Designated cleared, maintained worker parking and construction staging areas; no parking or construction activities in non-designated areas
- Prohibition of smoking and open fires at the project site during construction and operation, with a copy of the notification to all contractors regarding prohibiting smoking and burning to be provided to BLM and RCFD
- Assurances that all internal-combustion construction equipment are equipped with appropriate spark arresters and that fire extinguishers are immediately available and maintained in readiness for use at all times
- Presence of a fire watch with appropriate firefighting equipment available at the project site at all times when welding or other spark-generating activities are taking

place; prohibition of spark-producing activities (such as welding and metal cutting) when sustained winds exceed limits set forth by BLM and RCFD

- Appropriate hot work permits/approvals (for activities such as welding and metal cutting) to be obtained from BLM or other jurisdictional fire agency
- Curtailment of all construction activities in the event of a fire or when fuel and weather conditions get into the “very high” and “extreme” ranges (Red Flag Warning), as determined by the National Weather Service, with specific project-related activities to be allowed during very high or extreme weather conditions at the discretion of BLM
- Information contained in the Construction Fire Prevention Plan and location of fire-suppression materials and equipment to be included as part of the employee environmental training discussed in APM BIO-3 (Worker Environmental Awareness Program Training)

APM FIRE-2 Fire Management Plan. Prior to operation of new wind turbine generators (WTGs), the project applicant shall update the Fire Management Plan for review and approval by the Bureau of Land Management (BLM) and Riverside County Fire Department (RCFD). The Fire Management Plan shall contain (but not be limited to) the following provisions to be implemented during operation and maintenance:

- Guidance on where maintenance activities may occur (non-vegetated areas, cleared access roads, and work pads that are approved as part of the project design plans)
- A vegetation management plan to address vegetation clearance around all WTGs and plans for regularly scheduled brush clearance of vegetation on and adjacent to all access roads, power lines, and other facilities; all vegetation clearance and fire breaks to be consistent with BLM and RCFD requirements
- Means for ensuring on-site operational fire water supply (i.e., a functioning well or storage tank) is available prior to operation and documentation of fire flow rates consistent with BLM and RCFD requirements
- Procedures for supervisory control and data acquisition (SCADA) system (or other constant monitoring equipment) providing immediate notifications to emergency fire services
- Coordination and communication procedures with BLM and RCFD
- Personnel training and fire suppression equipment
- Red Flag Warning restrictions for operations and maintenance work
- Fire safety coordinator role as manager of fire prevention and protection procedures and coordinator with BLM and RCFD
- Other information as required by the California Department of Forestry and Fire Protection (CAL FIRE), BLM, and RCFD, as applicable

APM GEO-1 Site Design Requirements (refer to Section 3.7, Geology and Soils, for full text).

3.20.2 Impact Analysis

a. *Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

LESS THAN SIGNIFICANT IMPACT. Upon exiting I-10, construction traffic would travel on local roads (Haugen-Lehmann Way, Tamarack Road, Cottonwood Road, and Rockview Drive) for approximately 1.8 miles to reach the main project access roads. Local roads in the Community of Whitewater experience very low use. The project on-site access roads would provide primary access for all equipment during site evaluation, construction, and operation, and would require radius and other improvements (i.e., widenings and grading, and potentially gravel resurfacing). The project access roads are almost entirely on land administered by the BLM, and cross approximately 1,160 feet of private land within County jurisdiction on easements. The majority of the vehicle and truck transports would be standard sized and would not result in blockages of local roadways. Construction could require temporary detours or blockages of local roadways during the transportation of the oversized equipment for the eight new WTGs. Any oversized trucks would require permits through Caltrans and would follow all safety requirements, such as CHP escorts, flaggers and flashing lights. Furthermore, all local roadways that would be used for the project have redundant parallel roads that provide access to local neighborhoods. APM FIRE-1 (refer to Section 3.20.1) would require preparation of a Construction Fire Prevention Plan that would provide for fire/emergency service access if roadway blockage occurs due to large loads during construction.

Local roadways used by the project are not known to be part of an adopted or designated emergency evacuation route or plan. The Riverside County Emergency Operations Plan addresses wildfire as one of the most common hazard incidents faced by the County of Riverside. In the event of a wildfire emergency requiring evacuation and emergency vehicle access, the Riverside County Sheriff's Department would establish evacuation routes (County of Riverside 2019b). Operation and maintenance of the project is expected to generate minimal daily traffic volumes and would not result in an increase in traffic volumes compared to existing conditions. Therefore, project operations are not anticipated to result in any temporary disruptions to travel lanes. Due to the temporary nature of construction activities, and given that operational and maintenance activities would be similar to existing conditions, no impacts to emergency access and evacuation are anticipated to occur. Furthermore, APM FIRE-2 would require updates to the existing Fire Management Plan for review and approval by the BLM and RCFD prior to operation of the project. The Fire Management Plan would establish coordination and communication procedures for the project and fire agencies to ensure that the project would not interfere with established emergency response plans or evacuation routes. Therefore, the project would not substantially impair an adopted emergency response plan or evacuation plan, and impacts would be less than significant.

b. *Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

LESS THAN SIGNIFICANT IMPACT. The project is located in a region with moderate to very high wildfire risk as mapped by CAL FIRE. The project site is located in the foothills of the San Bernardino Mountains on the north side of San Gorgonio Pass. Slopes in the project area range from less than 15% to more than 30%. Prevailing winds are winds that predominantly blow from a certain direction. The prevailing wind direction in the project area for the majority of the year is from the west, with average monthly wind speeds ranging from 9 to 22 mph. Maximum wind gust speeds of more than 70 mph have been recorded in the project area (WRCC 2020). Average wind conditions in the project area exhibit mild seasonal variation, and wind

conditions at any given location may vary depending on topography and other factors. Surrounding vegetation, another factor that contributes to the fire environment, consists of woodland, shrub, and scrub habitats as well as several non-native and invasive shrub and grass species. In addition, wildland fuel is abundant in the San Bernardino National Forest area, which is located directly north/northwest of the project site. Due to the presence of dense, dry fuels, paired with a warm and arid climate, steep slopes, and high wind conditions, wildfires are a common hazard in the region. The project approach to fire prevention and defense includes planned fire safety measures during construction and operational activities.

Construction

Project construction would introduce new potential sources of ignition to the project site, including vehicles, sparks associated with grading and welding activities or other hot work, parking on or near dry vegetation, and the overall temporary increase in human activity on site. Accidental ignition could result in a fire, which could spread to off-site fuel beds. The consequences of a such a fire could be severe depending on weather conditions at the time and the ability of on-site firefighting personnel to quickly respond to the fire. If promptly addressed, small ignitions could be suppressed by designated fire watch personnel with fire suppression equipment that would be required to be maintained on site (e.g., fire extinguishers) per the Construction Fire Prevention Plan (APM FIRE-1). All construction equipment would be required to have fire suppression equipment on board or at the work site. In addition, availability of an adequate on-site water supply and all-weather access for firefighting equipment and emergency vehicles would be required.

APM FIRE-1 would minimize adverse impacts related to fire during construction by requiring preparation and implementation of a Construction Fire Prevention Plan. The Construction Fire Prevention Plan would specify construction requirements and restrictions, such as vegetation clearance requirements and curtailing construction activities during high wind events. Adherence to standard construction best management practices and applicable fire requirements identified in the Construction Fire Protection Plan would reduce the potential for significant fire hazards.

Given the unpredictable nature of wildfire and wind and the fact that high winds exist at the project site, it should be expected that a wildfire within the project area has the potential to disperse pollutants throughout the area and the West Coachella Valley. However, the project would not alter wind patterns or fire behavior, nor would it result in vegetation that could exacerbate pollutant concentrations compared to existing conditions. With implementation of APM FIRE-1, construction of the proposed project would result in less than significant impacts.

Operation

During project operation, fires could be caused by vehicle activity, parking on or near dry vegetation, and human activity on site. However, given that the number of employees and vehicles anticipated to be on site during project operations would not increase as compared to existing conditions, and the number of WTGs would be reduced from 460 to 8, the overall level of activity on site under the proposed conditions would be reduced.

The new WTGs would present potential sources of ignition during project operation. Similar to trees attracting lightning, the proposed WTGs and met tower could ignite from lightning strikes, as well as from mechanical failure, combustion of the hydraulic fluid in the WTG, or failure in the electrical system and braking system. As such, there is some potential for fire inside a WTG, which if not contained and depending on weather conditions, could spread to nearby vegetation. However, there is a low likelihood of malfunctions resulting in fires with modern WTGs (Rengel et al. 2017; Uadiale 2014). The project would be controlled by a SCADA system capable of monitoring all operational parameters and starting and

stopping each WTG. Furthermore, lightning protection systems would be installed on each new WTG and connected to an underground grounding arrangement. All equipment, cables, and structures that make up the new WTGs would be connected to a metallic site-wide grounding network. In the event of a fire, excess vibration, or extreme temperature, the WTG would be halted immediately. An alarm notice would immediately be sent to on-call operators who would take appropriate emergency measures including, but not limited to, contacting local fire agencies. In the event of such a fire, there is a limited ability for fire suppression crews to effectively fight a fire hundreds of feet above the ground within a WTG. High-wind conditions are risky for both WTG malfunction and the spread of wildfire. If a fire were to ignite during a high-wind condition, wind-blown embers from a WTG fire could potentially travel outside the WTG pad and ignite vegetation in the surrounding area. In response to this possibility, APM FIRE-2 would require that the existing Fire Management Plan be updated for the project. As specified in APM FIRE-2, the Fire Management Plan would include provisions for fire management and safety measures that shall be implemented, including vegetation clearance around all WTGs, work areas, and roads.

Public concerns related to fire from wind energy facilities are also associated with the potential for tower collapse or rotor failure and blade throw (separation of the blade from the rotor). Excessive static stress, material fatigue, seismic activity, or ground settling can cause tower failure, collapse, or both. The likelihood of tower failure from excessive stress or material fatigue is very low, and tower collapse is uncommon (Uadiale 2014). If a WTG experiences excess speed, material fatigue, excessive stresses, or vibration from seismic ground shaking, there is the potential for a rotor blade to crack or dislocate from the WTG tower. Blade failures may occur due to extremely high winds and excess rotor speed. Commercial WTGs are equipped with safety and engineering features to prevent excess rotor speed. Routine inspection and maintenance of the project WTGs would greatly reduce the risk of mechanical failure.

The project would replace the existing 460 WTGs with 8 new WTGs. The WTGs would be located farther from residential properties compared with the existing legacy WTGs and would be equipped with modern safety features. The existing 460 WTGs are beyond their commercial life and while regularly maintained, present a higher risk of failure and higher associated risk of fire than the proposed eight new WTGs. Therefore, the project would reduce wildfire risk compared with the baseline condition. Furthermore, APM FIRE-2 requires the applicant to renew and expand the existing Fire Management Plan to minimize potential adverse impacts relating to fire ignition. Furthermore, the project would not directly alter the existing slopes, wind conditions, or other factors that contribute to the fire environment. Therefore, the project would not exacerbate wildfire risk or expose people or structures to the uncontrolled spread of a wildfire or pollutants from a wildfire. With implementation of APM FIRE-2 and all fire safety measures, impacts would be less than significant.

c. Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

LESS THAN SIGNIFICANT IMPACT. Under existing permits, 460 existing 36-year-old WTGs will be removed from the project site, and the project proposes to construct, operate, maintain, and decommission eight new WTGs and a met tower to replace the existing wind energy production, as well as associated infrastructure. The project would require the installation and maintenance of associated infrastructure, including power and collector lines, access roads, construction laydown yards, and staging areas. Installation and maintenance of new infrastructure would create some fire risk, as it would introduce new potential sources of ignition to the project area including, but not limited to, vehicles and construction equipment.

Temporary Construction Staging and Laydown Yards. Project construction would require clearance of areas for equipment staging and laydown yards. Construction facilities may also include temporary offices,

storage containers, chemical toilets and parking for construction equipment and vehicles. Per the Construction Fire Prevention Plan (APM FIRE-1), fire safety procedures would be implemented in the temporary construction areas, such as maintenance of fire suppression equipment, vegetation clearance requirements, prohibition of smoking, and other construction restrictions. With implementation of the restrictions and precautions outlined in the Construction Fire Prevention Plan (APM FIRE-1), project construction staging and laydown yards would not exacerbate wildfire risk.

Power and Collector Lines. The proposed WTGs would require installation of new underground or overhead collector lines that would connect to the existing substation. All underground collector lines would be placed within the existing roadway alignments. All new overhead collector infrastructure would be installed on existing poles. The risk of fire associated with new overhead collector lines would be from environmental factors such as high winds and bird and bat collisions. As with existing conditions, vegetation would be cleared around all overhead power lines in compliance with CPUC requirements. Should events such as severe storms, earthquakes, or accidents result in downed power lines or poles, procedures outlined in the Fire Management Plan (APM FIRE-2) would be employed. In addition, implementation of the fire safety measures outlined in the Construction Fire Prevention Plan (APM FIRE-1) would reduce the risk of fire.

Access Roads. The project would require installation, improvement (e.g., widening), and/or maintenance of existing and proposed new access roads. Construction traffic would access the site from I-10, and would travel on local roads (Haugen-Lehmann Way, Cottonwood Road, and Rockview Drive) for approximately 1.8 miles, which would then connect to the unnamed on-site access road. The segment of Cottonwood Road, between Kimdale Drive and Rockview Drive, and then Rockview Drive east to Desert View Road would require vegetation clearing. The Rockview Drive right-of-way primarily includes an existing unpaved road with vegetation along the edges. The project proposes to widen the existing unpaved Rockview Drive to a width of 16 feet. The widening involves the removal of existing vegetation along the existing road margins. On-site access roads would be improved and/or widened to 24 feet, with some areas widened to as much as 40 feet for appropriate turning radius. All permanent access roads would be returned and maintained at a width of 16 feet following construction. Although existing on-site access roads would be used whenever possible, additional spur roads may be required to reach the proposed WTGs. Installation and improvements of access roads throughout the project site would be conducted in accordance with the Construction Fire Prevention Plan (APM FIRE-1) and maintenance of access roads would be conducted in accordance with the Fire Management Plan (APM FIRE-2), including vegetation clearance around roads. Given the vegetation clearance requirements, access roads could act as fuel breaks, with the proposed new and improved access roads allowing increased access to the project area for fire apparatus and emergency vehicles and equipment. The project would include periodic grading or replacement of gravel on access roads to maintain road quality for access to WTGs and throughout the site. Thus, the installation and maintenance of access roads would benefit fire response to a wildfire event.

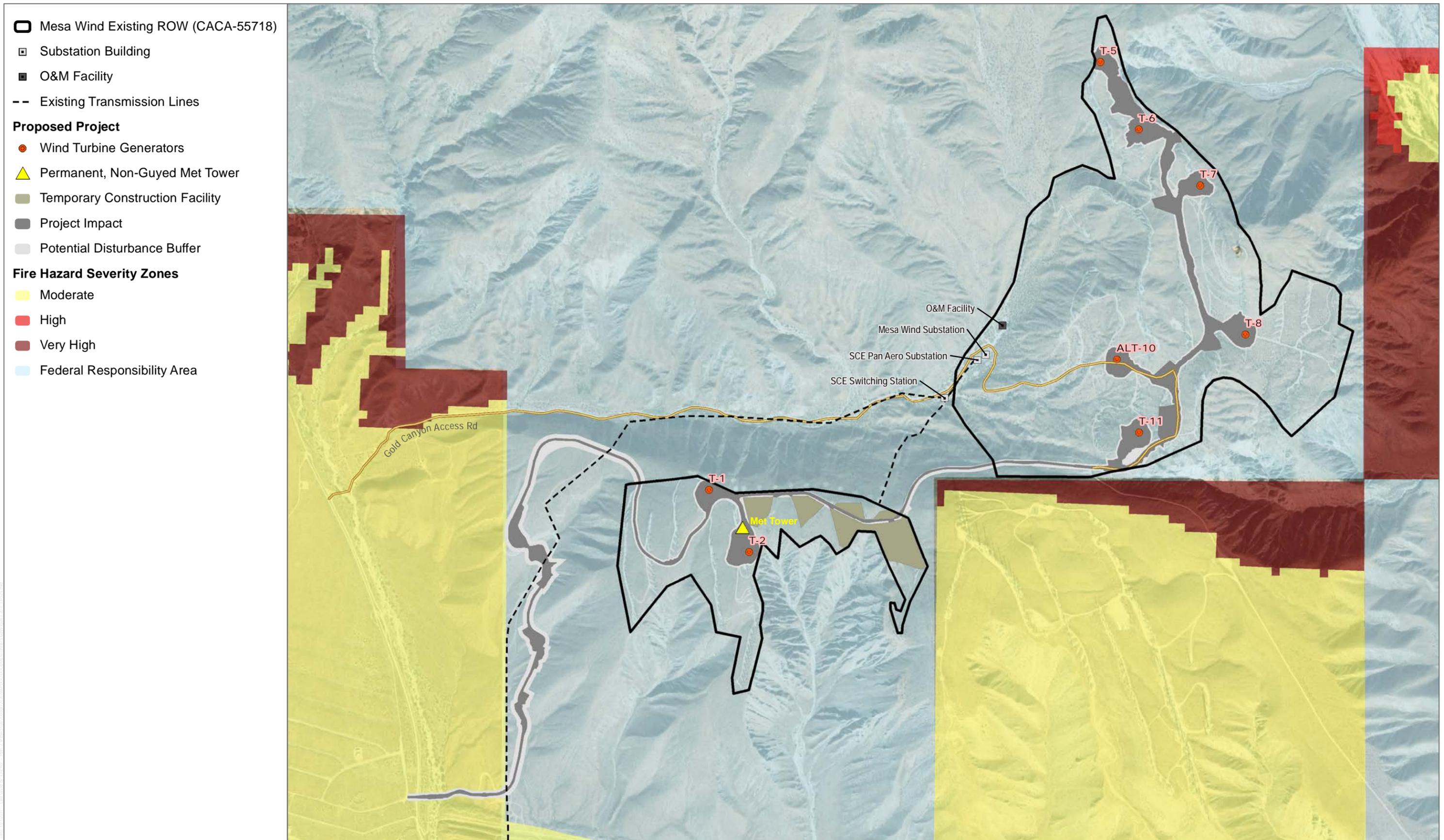
Construction and operation of the proposed project would not directly require new or expanded infrastructure other than that which is planned as part of the project. As discussed in Section 3.19, Utilities and Service Systems, no new utility connections, water/wastewater facilities, or other service utilities would be required for the project. Given that the activities involved with installation or maintenance of associated infrastructure would require ground disturbance and the use of heavy machinery associated with trenching, grading, site work, and other construction and maintenance activities, the installation of related infrastructure would potentially result in temporary or ongoing impacts to the environment. However, the installation and maintenance of roads, collector lines, staging areas/laydown yards and vegetation management activities are part of the proposed project analyzed herein. As such, any potential temporary or ongoing environmental impacts related to these components of the project have been accounted for and analyzed in this Initial Study

as part of the impact assessment conducted for the entirety of the project. In addition, the project would be required to comply with all regulatory requirements, APMs, and mitigation measures outlined in this Initial Study for the purposes of avoiding or mitigating impacts associated with trenching, grading, site work, and the use of heavy machinery. No adverse physical effects beyond those already disclosed and addressed in this Initial Study would occur as a result of implementation of the project's associated infrastructure. Therefore, the installation and maintenance of associated infrastructure would not exacerbate wildfire risk or result in impacts to the environment beyond those already disclosed throughout this document, and impacts would be less than significant.

d. Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

LESS THAN SIGNIFICANT IMPACT. The County General Plan's Earthquake-Induced Slope Instability Map (County of Riverside 2019a, Figure S-4) shows that the project area has low to locally moderate susceptibility to seismically induced landslides and rockfalls. The slopes in the area range from less than 15% to 30% and greater. All WTGs would be placed at least 3,450 feet from the nearest residence and would not be placed directly upslope from any residence. The project does not include extensive grading, excavation, or new structures that would significantly alter soil stability. Although project construction would require some grading and compaction on roads and work sites, the work would be conducted in accordance with the site-specific geotechnical recommendations according to geotechnical and geologic feasibility studies and soils reports that will be prepared and implemented for the project (APM GEO-1) as well as adherence to all applicable codes and regulations to prevent slope failure.

The majority of the project area consists of existing wind facilities and semi-disturbed vacant desert land. The project site is on mountainous terrain that includes small local drainages that carry runoff to the Whitewater River to the east, and to Cottonwood Creek to the west, which ultimately drains to the Whitewater River via the San Gorgonio River to the south of the project site. The Whitewater River is an intermittent stream that receives water from the Colorado River Aqueduct for groundwater recharge, and ultimately drains to the Salton Sea. Most of the site drains west and south to Cottonwood Creek and the San Gorgonio River, and only a small portion drains east directly to the Whitewater River. No substantial changes are proposed to the project site that would alter the drainage or cause flooding or erosion. Therefore, the project would not increase the risk of flooding, landslides, or post-fire slope instability, and impacts would be less than significant.



SOURCE: ESRI, CalFIRE, Aspen 2020

FIGURE 3.20-1
Fire Hazard Severity Zones
Mesa Wind Repower Project

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3.21 Mandatory Findings of Significance

MANDATORY FINDINGS OF SIGNIFICANCE				
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

- a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?**

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. As discussed in Chapter 2, Project Description, the proposed project would remove the existing 460 permitted legacy wind turbine generators (WTGs) and install and operate 8 new larger, taller WTGs. Construction of the proposed project would disturb approximately 98.0 acres. Sections 3.1 through 3.20 of this Initial Study identify impacts associated with project implementation and the level of significance of those impacts for each resource topic, as listed in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. Several Applicant Proposed Measures (APMs) and mitigation measures are identified in applicable impact analysis sections, ensuring that all impacts would be less than significant. Of this approximately 98 acres, the project would result in the substantial degradation of up to 74 acres of suitable and potentially occupied desert tortoise (*Gopherus agassizii*) habitat and habitat for other special-status wildlife species. As discussed in Section 3.4, Biological Resources, the project has a potential to adversely affect (directly and indirectly) several listed threatened or endangered wildlife, including desert tortoise, as well as protected birds and other special-status wildlife with the potential to be present on the project site. Construction activities could also result in the removal of several plant species; however, none of these species are characterized as sensitive. With incorporation of APM BIO-1 through APM BIO-12 and implementation of MM BIO-1 (Habitat Compensation) and MM BIO-3 (Restoration and Revegetation Standards), the project would avoid, minimize, and/or mitigate potential significant impacts to sensitive and special-status species. Furthermore, the applicant is seeking an incidental take permit (ITP) from the California Department of Fish and Wildlife (CDFW) specific to desert tortoise impacts. The ITP may include additional conditions and mitigation at the discretion of CDFW consistent with its regulatory authority under the California Fish and Game Code.

In October 2018, the Bureau of Land Management (BLM) issued Mesa Corp an amended right-of-way (ROW) grant (CACA-55178) for the 30-megawatt wind energy facility, including, but not limited to, 460 WTGs and on-site access roads. Under this approval, the applicant refurbished 129 WTGs while determining how to proceed with the remaining 331 WTGs (refer to Section 1.1, Background). The proposed project would also potentially result in bird and bat collision. Section 3.4, Biological Resources, discusses the difference of rotor swept area between the existing wind energy facility (460 existing WTGs) and the proposed project, and concludes that at a nominal 5.85% increase, there would be a less than significant impact relative to rotor swept area. The existing permitted 460 WTGs replaced with 8 WTGs at discrete locations will be more dispersed with a greater distance between the rotor swept areas of each WTG. The project's increased spacing and less widespread rotor swept area is expected to reduce bird risk exposure for certain bird species.

Although the project's rotor swept area would only increase by 5.85% and would occur at only 8 WTGs with greater spacing than the existing conditions, the rotor swept height would be higher than under the existing conditions. Birds—for example, raptors, which may use soaring behavior within the rotor swept zone—could be exposed to collision risk from the project. As described in Section 3.4, Biological Resources, an evaluation of bird diversity, use, behavior, and risk exposure for the project, including large birds and other special-status bird species, concluded that risk exposure would be relatively low and primarily associated with common raptor species. The potential for impacts would be reduced to less than significant through incorporation of APM BIO-13 through APM BIO-15. Although substantial effects from bird fatalities are not expected, bird fatalities that exceed the amount expected based on this impact analysis and the supporting documentation would be significant if not mitigated by implementing MM BIO-2 (Bird and Bat Conservation Strategy Standards). With incorporation of APM BIO-13 through APM BIO-15 and implementation of MM BIO-2, the effect of the project on migratory or nesting birds and potential effects to their movement or wildlife nursery sites would be less than significant.

No wetlands are present on the project site or in the vicinity; therefore, the project would have no impact to wetlands. However, the project would permanently impact approximately 3.21 acres of CDFW-jurisdictional waters and temporarily impact approximately 2.63 acres of CDFW-jurisdictional waters (refer to Section 3.4.2[b]). The ephemeral channels or desert washes also meet jurisdictional criteria as waters of the state according to the Porter-Cologne Water Quality Control Act. Implementation of APM BIO-2 through APM BIO-4 and APM BIO-8 would minimize the effects of the project on riparian habitat and sensitive vegetation. Implementation of APM BIO-12 (Revegetation) would result in revegetation of habitat in areas temporarily disturbed areas following construction.

To mitigate permanent impacts and ensure that temporary impacts to desert willow woodland vegetation are restored, the project applicant must prepare and adhere to revegetation standards through implementation of MM BIO-3. Impacts to desert willow woodland vegetation would be further addressed through Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) consistency (MM BIO-4), including payment of the CVMSHCP fee and adherence to all applicable Land Use Adjacency Guidelines. In addition, the proposed project would restore approximately 20 acres of currently disturbed habitat as part of the decommissioning of the existing legacy WTGs, and the habitat compensation provided under MM BIO-1 for desert tortoise is likely to support ephemeral washes and associated resources as well.

The project would not conflict with any applicable local policies or ordinances protecting biological resources, such as tree preservation policies or ordinances. The project site is located within the CVMSHCP boundaries, which is discussed further in Section 3.4.2(f). The project would also be consistent with the goals and policies of the County of Riverside (County) General Plan (County of Riverside 2015) and the project's Wind Energy Conversion System permit conditions. Impacts from the project relative to local policies and ordinances would be less than significant.

The majority of the project area is on BLM-administered lands, and because BLM is not a permittee, the BLM-administered lands would not be eligible for listed species take coverage under the CVMSHCP. However, the western portion of the access road is located on private land and is subject to the Joint Project Review (JPR) process. Based on the evaluation in Section 3.4, the proposed project would be considered consistent with the CVMSHCP requirements and would adhere to all conditions deemed required by the Coachella Valley Conservation Commission, CDFW, and U.S. Fish and Wildlife Service through the JPR process. With incorporation of the specified APMs and implementation of MM BIO-1, MM BIO-3, and MM BIO-4, the proposed project would be consistent with the CVMSHCP and would not result in adverse effects to the biological resources covered by the CVMSHCP; therefore, the impacts would be less than significant.

With incorporation of APM BIO-1 through APM BIO-15 and implementation of MM BIO-1 through MM-BIO-4, the project would avoid, minimize, and/or mitigate potential significant impacts to sensitive biological resources.

As discussed in Section 3.5, Cultural Resources, cultural resources surveys have been completed and Native American Tribes have been consulted. There are no known resources eligible for the California Register of Historical Resources (CRHR) or National Register of Historic Places (NRHP) within the project site. Six cultural resources were identified within the project site during the Class III survey, which include mining exploration features, a mid-century ranching facility, and one isolated prehistoric resource. These resources have been evaluated for eligibility, and determined ineligible, for listing in the NRHP and therefore also for listing in the CRHR. Implementation of APM CUL-1 through APM CUL-4 would require monitoring, worker training, and guidelines for handling resources if a discovery is made.

As discussed in Section 3.18, Tribal Cultural Resources, a Tribal Cultural Resource (TCR) was identified within the project site or within the 1-mile surrounding area as a result of consultation requests from four Native American Tribes pursuant to Assembly Bill 52 (AB 52) and discussions with CDFW. To ensure ground-disturbing construction activities do not result in impacts to the known TCR or unknown subsurface TCRs, the project applicant would implement APM TCR-1 through APM TCR-3, requiring Cultural Sensitivity Training prior to construction activities, presence of a Tribal Monitor during ground-disturbing construction activities, and procedures to be implemented in the event of unanticipated impacts or discoveries.

With implementation of applicable APMs and mitigation measures identified in this Initial Study, construction and O&M of the proposed project would not substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. Therefore, with mitigation, impacts would be less than significant.

b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. CEQA requires lead agencies to consider the cumulative impacts of proposed projects under review. A project may result in significant adverse cumulative impacts when its effects are cumulatively considerable; that is, the incremental effects of an individual project are significant when viewed in connection with the effects of past, present, and

reasonably foreseeable future projects regardless of what agency or person undertakes such other actions (14 CCR 15130[a][1]).

Under CEQA, there are two acceptable and commonly used methodologies for establishing the cumulative impact setting or scenario: the “list approach” and the “projections approach.” The first approach would use a “list of past, present, and probable future projects producing related or cumulative impacts” (14 CCR 15130[b][1][A]). The second approach is to use a “summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact” (14 CCR 15130[b][1][B]).

For this Initial Study, the “list” approach was selected. In the context of analysis of cumulative impacts, the term “cumulative scenario” is used to include the proposed project and other identified projects whose impacts have the potential to combine or overlap with those of the project.

Cumulative Projects

Projects used in the cumulative impact analysis are listed in Table 3.21-1. Projects within a 10-mile radius of the project site are considered in the analysis.

Table 3.21-1. Cumulative Projects

Project ID No./ Project Name	Project Description	Location	Proximity to Project	Status
Decommissioning of Existing Mesa Wind Energy Facility WTGs	Decommissioning of the existing Mesa Wind energy facility will commence in the first quarter of 2021. The project includes removal of 460 existing WTGs and foundations, covered under BLM ROW Grant CACA-55718. Decommissioning activities are expected to be completed by mid-2021.	Within the Mesa Wind Repower Project site	Within the Mesa Wind Repower Project site	Approved, decommissioning commencing first quarter 2021
Decommissioning of Existing WTGs on Alta Mesa Wind Project Site	Decommissioning of the existing WTGs within the Alta Mesa Wind Project site is currently underway. A total of 159 WTGs will be removed by end of first quarter 2021 under existing permits with the County	South and east of the Mesa Wind Repower Project site	<0.1 miles south and east	Decommissioning underway
Alta Mesa Wind Project	The Alta Mesa Wind Project (Alta Mesa) proposes to construct, operate, and decommission 7 WTGs. This would occur on 640 acres of private land. This project is proposed by Mesa Corp and is under permitting by the County of Riverside (County). Decommissioning of 159 existing WTGs is underway, covered under existing permits, and is expected to be completed in the first quarter of 2021.	South and east of the Mesa Wind Repower Project	<0.1 miles south and east	Under environmental review

Table 3.21-1. Cumulative Projects

Project ID No./ Project Name	Project Description	Location	Proximity to Project	Status
Painted Hills Wind Energy Repowering Project	Painted Hills is an approximately 600-acre wind energy repower project. The project proposes decommissioning and removing almost 300 existing WTGs, and installing up to 14 new commercial WTGs up to 499 feet tall. The project proposes to install ancillary equipment that includes 3 temporary meteorological towers, 2 permanent meteorological towers, and site upgrades. This project has been approved by the County.	Riverside County, east of the unincorporated Whitewater area, and within the San Gorgonio Pass Wind Energy Policy Area	1.75 miles east	Under construction
Mountain View Wind Repower Project	The Mountain View Wind Repower Project proposes decommissioning of 93 existing WTGs and construction, operation, and decommissioning of 16 new WTGs. Seven existing WTGs would remain operational as part of the project. The County of Riverside is currently reviewing the application for this project.	Riverside County, south of I-10, north of the Union Pacific Railroad and west of Indian Canyon Drive	3.2 miles southeast	Under environmental review
Coachella Wind Holdings Repower Project (previously San Jacinto Wind II Project)	The San Jacinto Wind II Project proposes to decommission and remove approximately 146 existing WTGs and install 3 new WTGs on BLM land with ancillary equipment. This would occur on approximately 225 acres of land. This project proposes leaving 45 of the existing WTGs operating.	Riverside County, South of I-10 and SR-62 Junction, 4 miles north of Downtown Palm Springs	7.25 miles southeast	Approved, pre-construction
Multi-Tenant Wireless Broadband Communications Site	This project is one three-legged, 196-foot-tall, freestanding self-support lattice communication tower on 2.2 acres of land administered by BLM	Riverside County, in Morongo Canyon at SR-62	6.5 miles northeast	Under environmental review
Interstate10 Bypass – Banning to Cabazon	This project would be a road between the City of Banning and the unincorporated community of Cabazon. It is currently under review with a final environmental document expected in early 2021. After the document is released, the design and ROW phases would begin.	Riverside County, between the City of Banning and the unincorporated community of Cabazon	6 miles west	Under environmental review
West of Devers Upgrade Project	SCE proposed to upgrade and adjust 48 miles of existing 220 kV transmission lines between North Palm Springs and San Bernardino, in Riverside and San Bernardino Counties within a utility corridor	South of the Mesa Wind Repower Project	0.75 miles south	Under construction

Table 3.21-1. Cumulative Projects

Project ID No./ Project Name	Project Description	Location	Proximity to Project	Status
	occupied by existing transmission lines. The project is anticipated to be operational by 2022.			
Riverside County flood berm and road work – Whitewater Canyon	This project consists of roadwork including a flood berm due to the road being washed out in 2019. The total project disturbance is 38 acres for roadwork and berm. Project is north of Bonnie Bell.	Riverside County, Whitewater Canyon Road at Horn Corner	1.5 miles north	Under construction
Private residential and commercial development in Palm Springs, Banning, and at the Morongo Casino	Private residential and commercial development projects are proposed or under construction within the 10-mile radius. Example projects include the 3,385-residential-unit Rancho San Gorgonio Project partially within the 10-mile radius in Banning, the Morongo Casino Expansion, and numerous residential projects in the City of Palm Springs.	Riverside County, within 10 miles of the project boundary	Between 7 and 10 miles from the project site, in various directions	Planning/under environmental review/under construction

Source: BLM 2020.

Notes: WTG = wind turbine generator; BLM = Bureau of Land Management; ROW = right-of-way; I = Interstate; SR = State Route; SCE = Southern California Edison; kV = kilovolt.

Cumulative Analysis

This section provides a discussion regarding whether the proposed project would result in cumulatively considerable significant short-term or long-term environmental impacts when combined with other past, present, and reasonably foreseeable future projects in the area. Short-term (temporary) impacts are generally associated with construction of a project, while long-term (permanent) impacts result from ongoing O&M of a project.

The proposed project would have no impact to agriculture and forestry, energy, mineral resources, population and housing, or recreation. As such, the proposed project would not contribute to cumulative impacts on these resources. For greenhouse gas emissions, public services, transportation, and utilities and service systems, the project would result in less than significant effects and would not contribute to a cumulatively considerable impact. The vehicle use considered in the Transportation section includes the vehicles that would be used for Alta Mesa and no additional cumulative projects would use the same access route from I-10.

Aesthetics. In the geographic scope for aesthetics, the project site would be in the same field of view as other built facilities or impacted landscapes. The cumulative wind energy projects in the vicinity are within an established wind energy corridor within the San Gorgonio Pass Area. In addition, the cumulative wind energy projects are wind repower projects that would replace existing legacy WTGs with modern energy-efficient WTGs. This analysis primarily focuses on one other project, the Alta Mesa Wind Project, because it is located on adjacent ridges immediately to the east and south of the proposed project WTGs, and it would be difficult for viewing populations to determine where one project ends and the other begins.

Once constructed, the proposed project and the adjacent Alta Mesa project would appear identical in terms of structural design and scale. As a result, the two projects would be perceived as a single development. This would create a combined effect on visual resources. Both the proposed project and the Alta Mesa project would entail the repowering of existing wind energy facilities, resulting in a combined installation of 15 WTGs. Currently, decommissioning of the Alta Mesa WTGs is ongoing, and will be followed immediately by decommissioning of the existing Mesa Wind WTGs. Decommissioning of 619 existing WTGs on the two sites is anticipated to be completed by mid-2021, covered by existing permits, and prior to start of construction for the proposed project and the Alta Mesa project. While the new WTGs would be larger than the existing WTGs, they would not result in a cumulatively significant impact compared to the baseline and the new WTGs would generally display a similar mass and scale as other modern WTG development in the project area. Both the proposed project and the Alta Mesa project would be decommissioned after 30 years of operation, including removal of WTGs and associated improvements.

Because construction of both the proposed project and Alta Mesa project are anticipated to overlap to some degree or possibly occur consecutively, construction activities, equipment, and night lighting would combine and lead to the continued presence of construction equipment on roads and in the landscape in the I-10 corridor. The total construction timeframe for both projects would be the same, up to 18 months. All construction activities for the proposed project and the Alta Mesa project would be greater than 3,400 feet from the nearest residence and would be of short duration from any one viewpoint. In addition, due to the existing nature of the established wind energy corridor, construction activities would not strongly contrast with the existing landscape of the project site or nearby wind energy facilities.

Future decommissioning for the proposed project and the Alta Mesa project may overlap or be conducted consecutively, and would be completed over a 12-month duration. Decommissioning activities would occur within a short duration from any one viewpoint. Upon completion of future decommissioning activities, disturbance areas would be revegetated.

Based on the analysis in this document, the project's incremental contribution would not be cumulatively considerable in the context of, or in combination with, past, present, and reasonably foreseeable future projects.

Air Quality. The geographic scope of the cumulative effects analysis for air quality is a 6-mile radius because this radius includes projects that are in close enough proximity to combine localized air impacts. The project air quality impacts would primarily combine with construction of the Alta Mesa project. Decommissioning of 619 existing WTGs on the two sites is anticipated to be completed by mid-2021, covered by existing permits, prior to start of construction for the proposed project and the Alta Mesa project. As such, decommissioning of existing WTGs would not combine with the proposed project to create cumulatively considerable air emissions. Because the project site and the Alta Mesa project site are adjacent to each other and construction activities may overlap to some degree or possibly occur consecutively, the combined air emissions associated with construction activities (approximately a 16-month duration) could be cumulatively considerable. As such, the emissions presented in Tables 3.3-4 and 3.3-6 include annual and daily emissions for both repower projects (the proposed project and the Alta Mesa project). Whether the projects overlap or occur consecutively, the modeled construction-source air emissions would not exceed applicable South Coast Air Quality Management District (SCAQMD) regional thresholds for daily or annual pollutant emissions and would be less than significant. Per SCAQMD criteria, less-than-significant impacts at the project level are not cumulatively considerable (SCAQMD 2003).

Operation of the proposed project is anticipated to generate air emissions consistent with the existing wind energy facility. Therefore, operation of the proposed project would not generate a new source of air emissions that would contribute to a cumulatively considerable air emissions in the project vicinity.

Both the proposed project and the Alta Mesa project would be decommissioned after 30 years of operation, and decommissioning could result in a cumulatively considerable temporary increase in air emissions at the project site. As shown in Tables 3.3-4 and 3.3-6, future decommissioning activities associated with the proposed project and the Alta Mesa project would not exceed applicable SCAQMD regional thresholds for daily or annual pollutant emissions and would be less than significant. Per SCAQMD criteria, less-than-significant impacts at the project level are not cumulatively considerable (SCAQMD 2003).

Several projects within the 6-mile radius, including the Coachella Wind Holdings Repower, Painted Hills Wind Repower, West of Devers Upgrade, Riverside County flood berm, roadwork projects, are already approved or under construction and therefore would be unlikely to overlap with the entirety of the proposed project and Alta Mesa project construction. If portions of the cumulative projects' construction (such as Mountain View Wind Repower), or construction of other projects within a 6-mile radius (such as private development on the outskirts of Palm Springs), occur concurrently, the combined effects of construction emissions—including fugitive dust and equipment exhaust emissions—could be worsened. However, all projects under construction would be required to comply with the applicable rules and regulations established by SCAQMD to avoid visible plumes and implement additional measures where needed to control dust emissions.

Based on the analysis in this document, the project's incremental contribution to air emissions would not be cumulatively considerable in the context of, or in combination with, past, present, and reasonably foreseeable future projects.

Biological Resources. The cumulative analysis for biological resources uses the CVMSHCP coverage area as the geographic scope. The project site is within the CVMSHCP boundaries and the species affected by the proposed project would be the same as those considered under the CVMSHCP. The project site is almost entirely on BLM land and would not be eligible for listed species take coverage under the CVMSHCP. However, the western portion of the access road is located on private land. As such, this access road area is subject to CVMSHCP requirements, as are the other cumulative projects located on non-BLM lands. Each project is either subject to review for impacts to sensitive biological resources through the CVMSHCP JPR process or, if on BLM-administered lands, subject to the federal Endangered Species Act. Furthermore, all projects with impacts to state or federal jurisdictional waters would be subject to review and would be required to mitigate impacts accordingly. The proposed project would avoid, minimize, and/or mitigate all impacts to sensitive biological resources through incorporation of APM BIO-1 through APM BIO-15, as well as through implementation of desert tortoise habitat compensation (MM BIO-1), revegetation standards (MM BIO-3), and CVMSHCP consistency requirements (MM BIO-4).

The proposed project and Alta Mesa project would include construction of 15 new, larger turbines to replace 619 legacy WTGs. Decommissioning activities of the 619 existing WTGs within the project site and Alta Mesa project site would not cumulatively contribute to cumulative impacts to bird and bat mortality. Specific to operation, although bird and bat mortality from wind repower projects has not been studied in the San Geronio Pass area, there have been studies in the Altamont Pass area that document effects of first-generation WTGs. There are anecdotal reports of bird mortalities (including golden eagle [*Aquila chrysaetos*]) at the existing site and at several other sites in the area. As a result, the extent of golden eagle or other bird and bat mortality from WTG collisions in the San Geronio Pass would be speculative and cannot reasonably be quantified in a manner that provides a meaningful review in terms of the overall importance to bird and bat populations. The project would contribute to a new baseline and operational bird and bat mortality data, as part of the Bird and Bat Conservation Strategy (APM BIO-14 and MM BIO-2). Additionally, the four other repower projects identified as cumulative projects (Alta Mesa, Painted Hills, Mountain View, and Coachella Wind Holdings) are expected to contribute to an understanding of regional

bird and bat mortality risks of wind repower projects. All of these repower projects include requirements for bird and bat mortality monitoring, and combined with the proposed project, will contribute to improving the understanding of bird and bat mortality in the area. In addition, per APM BIO-15, the applicant must work with the U.S. Fish and Wildlife Service to develop an approach to reduce potential effects to golden eagles.

With implementation of applicable APMs and mitigation measures, the proposed project's incremental contribution to impacts on biological resources would not be cumulatively considerable in the context of, or in combination with, past, present, and reasonably foreseeable future projects.

Cultural Resources. The project site is within the San Geronio Pass area where several existing wind energy facilities are currently operational. The project site is currently developed as a wind energy facility. Existing WTGs within the project site are anticipated to be decommissioned by mid-2021 under existing permits, prior to construction of the proposed project. Decommissioning of existing WTGs would be limited to disturbed areas. As such, decommissioning of existing turbines within the project site and Alta Mesa project site are not anticipated to contribute to cumulative impacts on cultural resources.

Construction of the proposed project has been designed to maximize use of disturbed areas, thereby minimizing new disturbance. In addition, the project will implement APM CUL-1 through APM CUL-4 to minimize impacts to unknown buried resources and human remains that may be discovered during ground-disturbing activities. Furthermore, the adjacent Alta Mesa project, as well as the Painted Hills and Mountain View repower projects, include similar measures. Therefore, the project's contribution to impacts on cultural resources would not be cumulatively considerable in the context of, or in combination with, past, present, and reasonably foreseeable future projects; therefore, in combination with these past, present, and future projects, it would not result in a cumulatively considerable significant impact.

Geology and Soils. Impacts to geology and soils are localized in nature and are unlikely to combine with the impacts of other projects unless immediately adjacent to the locations. Decommissioning of the 619 existing WTGs within the project site and the Alta Mesa project site is anticipated to be completed by mid-2021 under existing permits, prior to initiation of project construction. Foundations for 35 existing WTGs would be removed within the disturbance footprint for the proposed project and filled with native soil. Because the Alta Mesa project is adjacent to the proposed project site and construction activities may overlap or be conducted consecutively, it could combine with the proposed project to result in cumulative impacts. Both the proposed project and the Alta Mesa project would be required to prepare and implement a stormwater pollution prevention plan (and best management practices [BMPs]), which would reduce the projects' contribution to any cumulative erosion. In addition, both projects would be required to comply with all engineering studies to address the geology of the site, thus reducing the effects of any potential ground-shaking impacts. Because both the proposed project and the Alta Mesa project are more than 3,400 feet from the nearest sensitive receptor, they would not combine to result in a cumulatively significant impact due to geology and soils.

No known paleontological resources have been identified on the project site or within a 1-mile radius. The proposed project and the Alta Mesa project have the potential to destroy unknown buried paleontological resources, given that this area has PFYC 2 and 3 classifications; however, the characteristics of the project site, such as slope and soil, are generally not good conditions for fossil preservation or yield. The project site is disturbed and currently developed as a wind energy facility. Existing WTGs within the project site are anticipated to be decommissioned by mid-2021 under existing permits, prior to construction of the proposed project. Decommissioning of existing WTGs would be limited to disturbed areas. As such, decommissioning of existing turbines within the project site and Alta Mesa project site are not anticipated to contribute to cumulative impacts on paleontological resources. In addition, the proposed project has

been designed to maximize use of disturbed areas, thereby minimizing new disturbance. In addition, the project includes APM PAL-1 to protect any paleontological discoveries and minimize impacts, and the Alta Mesa project would also incorporate similar measures. Therefore, the project's contribution to impacts on paleontological resources would not be cumulatively considerable in the context of, or in combination with, past, present, and reasonably foreseeable future projects.

Hazards and Hazardous Materials. Impacts due to hazards and hazardous materials are localized in nature and are unlikely to combine with impacts of other projects unless in the immediate vicinity. Decommissioning of 619 existing WTGs within the project site and the Alta Mesa project site are anticipated to be completed by mid-2021, prior to initiation of project construction; therefore, the storage, use, disposal and transportation of hazardous materials associated with the existing WTGs would not overlap with the proposed project or the Alta Mesa project. As such, decommissioning of existing WTGs would not contribute to cumulative impacts.

Operation of the proposed project and other wind energy projects in the area would involve the storage, use, disposal, and transportation of hazardous materials to varying degrees during construction, operation, and future decommissioning. Impacts from these activities would be less than significant because the storage, use, disposal, and transportation of hazardous materials are extensively regulated by various federal, state, and local laws, regulations, and policies. These projects and other cumulative projects would be required to implement and comply with these standard hazardous materials laws, regulations, and policies. Therefore, the project's contribution to impacts associated with hazards and hazardous materials would not be cumulatively considerable in the context of, or in combination with, past, present, and reasonably foreseeable future projects.

Hydrology and Water Quality. The project site is in the Whitewater Hydrologic Unit and the Coachella Valley Basin Planning Area. The Alta Mesa project, which is adjacent to the proposed project, is also in this unit and area. The sites, on mountainous terrain, in an arid climate, are intersected by small, local drainageways that carry runoff toward the Whitewater River. The streams are ephemeral, and none of these drainageways on the proposed project and Alta Mesa project sites carry sufficient water to generate runoff except during infrequent rains. A number of the other projects, including the Mountain View Wind Repower Project, are at lower elevations, and also carry runoff to the Whitewater River.

The project site and Alta Mesa project site are currently developed as wind energy facilities. The 619 existing WTGs are anticipated to be decommissioned by mid-2021 under existing permits, prior to construction of the proposed project or Alta Mesa Project. The 15 proposed WTGs associated with the proposed project and Alta Mesa project would be spaced out across the project sites, resulting in smaller footprints as compared to the existing footprint at each WTG. Due to the terrain of the project area and the layout of the proposed project and Alta Mesa Project, the existing drainage patterns would not be altered in a way that would contribute a cumulatively considerable increase in off-site drainage or impacts to designated flood zones.

Some of the proposed WTGs and some of the shared access roads for the Alta Mesa project are within the Coachella Valley Groundwater Basin (CVGB). The groundwater is well below the maximum depth of excavation because the project sites are on hills that are 600 feet or more above the valley floor. As such, groundwater is not expected to be affected by construction, operation, or future decommissioning of the proposed project or Alta Mesa project.

To prevent surface water contamination during construction activities, a site-specific stormwater pollution prevention plan would be implemented, pursuant to the Construction General Permit. In addition, a hazardous materials business plan (APM HAZ-1) and spill prevention control and

countermeasure plan (APM HAZ-2) would be implemented during construction, operation, and future decommissioning of the proposed project, and would include information regarding the presence and storage of hazardous materials, as well as accidental release procedures. All cumulative projects in the vicinity would be required to implement similar plans pursuant to federal, state and local regulations to ensure that water quality is not adversely affected.

Water used during construction is expected to be drawn from the CVGB from an on-site well, as there are no other known aquifers in the area. Because the Alta Mesa project is adjacent to the proposed project site and construction activities may overlap or be conducted consecutively, the cumulative construction water demand of the projects has been evaluated. Temporary water use during construction for both the proposed project and the Alta Mesa project is expected to be approximately 78 acre-feet in total, which is minor (0.06%) compared to the CVGB annual deficit of 137,000 acre-feet per year (CVRWWMG 2010). The Mountain View Wind Repower Project will not draw groundwater; however, for the purposes of this analysis, information regarding the water sources for other cumulative projects was not accessible. Nevertheless, the projects would not contribute to a permanent increase in water demand because the anticipated operational water use would be consistent with annual water use for operation of the existing wind energy facility. The water quality of surface and groundwater would be protected, and the cumulative scenario would not contribute to a significant deficit in the groundwater basin.

Based on the analysis in this document, the project's contribution to impacts on hydrology and water quality would not be cumulatively considerable in the context of, or in combination with, past, present, and reasonably foreseeable future projects.

Land Use. The project site and the other cumulative wind energy projects are located within the San Geronio Pass Wind Energy Policy Area, established by Riverside County, attributable to favorable conditions for wind energy generation. Due to the proposed project's location primarily on BLM land, the two main land use plans that would apply are the Desert Renewable Energy Conservation Plan (DRECP) within BLM land and the CVMSHCP for the portion of access road within Riverside County. The proposed project could conflict with the DRECP or CVMSHCP in a manner that would result in incremental impacts (such as habitat modification and water quality), which, combined with the other projects in the area, could result in potentially significant impacts. As discussed in Section 3.11, Land Use, with implementation of applicable APMs and mitigation measures, the proposed project would be consistent with the DRECP and CVMSHCP. Similar to the proposed project, all projects in the area must be designed to comply with applicable land use plans during the permitting phase or mitigate potential environmental impacts due to conflicts with a land use plan. As such, the proposed project would not contribute to a cumulatively considerable environmental impact due to conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding, minimizing, or mitigating an environmental effect. Therefore, the project's contribution to environmental impacts due to conflict with a land use plan would not be cumulatively considerable in the context of, or in combination with, past, present, and reasonably foreseeable future projects.

Noise. The geographic scope for the cumulative scenario for noise is 3,000 feet, because noise that has traveled beyond this distance dissipates into the environment. The cumulative scenario would last the duration of the project. Decommissioning of 619 existing WTGs within the project site and the Alta Mesa project site is anticipated to be completed by mid-2021, prior to initiation of project construction; therefore, decommissioning of existing WTGs would not contribute to cumulative noise generated by project construction. During construction, the proposed project could have cumulative effects when combined with the Alta Mesa project because the projects are adjacent to one another and construction may overlap or be conducted consecutively.

All cumulative projects, like the proposed project, would be required to comply with applicable Riverside County ordinances and standards to minimize noise impacts to area receptors. Due to the distance of the disturbance area from the closest receptor, noise would be expected to increase during construction compared to the baseline but would not be cumulatively significant. Future decommissioning of the proposed project may overlap with decommissioning of the Alta Mesa project, which could result in temporary cumulative noise effects, similar to construction activities.

In the immediate vicinity, during operation, the cumulative noise impacts of the proposed project would combine with those of the Alta Mesa project. Both the proposed project and the Alta Mesa project would include construction of modern WTGs that are generally quieter in mechanical noise than the existing WTGs. The nearest receptor is beyond the 3,000-foot setback required by County Noise Ordinance No. 348. Noise sources related to the proposed project and cumulative projects at distances greater than 3,000 feet from receptors would not likely create a cumulative noise impact at the receptors. Due to the limited operational noise impacts associated with the proposed project and the Alta Mesa project, the cumulative impact would be negligible, and operation of the projects would not result in adverse cumulative effects on noise levels.

Based on the analysis in this document, the project's contribution to noise impacts would not be cumulatively considerable in the context of, or in combination with, past, present, and reasonably foreseeable future projects.

Tribal Cultural Resources. Urban development that has occurred over the past several decades in Riverside County has resulted in adverse impacts on TCRs. However, the adoption of state and federal laws related to TCRs, such as AB 52, have provided a mechanism for consultation between California Native American Tribes and lead agencies to address potential impacts of development activities on known and unknown TCRs.

The project site is disturbed, currently developed as a wind energy facility. Existing WTGs within the project site are anticipated to be decommissioned by mid-2021 under existing permits, prior to construction of the proposed project. Decommissioning of existing WTGs would be limited to disturbed areas. As such, decommissioning of existing turbines within the project site and Alta Mesa project site are not anticipated to contribute to cumulative impacts on cultural resources. All the cumulative projects are subject to AB 52. Through its Tribal consultation pursuant to AB 52, CDFW has determined a TCR is present within the project site or within the 1-mile surrounding area. Implementation of the proposed project could contribute to potential cumulative impacts on TCRs, as well as buried human remains. To avoid potential impacts to TCRs during ground-disturbing construction activities, the project applicant would implement APM TCR-1 through APM TCR-3, which require Cultural Sensitivity Training prior to construction activities, presence of a Tribal monitor during ground-disturbing construction activities, and procedures for unanticipated discovery or impacts. In addition, the applicant would implement APM CUL-4 to avoid inadvertent impacts to human remains. Therefore, the proposed project would result in a less-than-significant cumulative impact to TCRs. Furthermore, the project's contribution to impacts on TCRs would not be cumulatively considerable in the context of, or in combination with, past, present, and reasonably foreseeable future projects.

Wildfire. Cumulative risk of fire depends on the combined short-term and long-term potential to start a fire or impede firefighting. The proposed project and other repower projects would reduce the risk of fire compared to existing conditions, due to the reduced number of overall WTGs in the area. Construction of the proposed WTGs poses a minor fire risk. Nevertheless, all construction projects are required to include measures to minimize fire risk.

The proposed WTGs include modern technologies that would reduce the risk of fire during operation compared to the existing WTGs. As wind energy facilities within the San Gorgonio Pass continue to be repowered with modern WTGs, the cumulative risk of fire during long-term operation would be reduced. Similarly, the West of Devers project that is south of the project site is implementing measures to reduce fire risk by replacing older transmission lines and wooden poles with new transmission lines.

Future decommissioning of the proposed project would occur after approximately 30 years of operation. Decommissioning activities would pose a temporary minor fire risk, similar to construction activities, and measures would be implemented to minimize fire risk.

Based on the analysis in this document, the project's contribution to wildfire risk would not be cumulatively considerable in the context of, or in combination with, past, present, and reasonably foreseeable future projects. Furthermore, the combination of the proposed project with these past, present, and future projects would not result in a cumulatively considerable significant impact.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

LESS THAN SIGNIFICANT IMPACT. As noted throughout this Initial Study, with implementation of APMs and mitigation measures, the proposed project would not result in environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly. The project would be required to comply with air district standards, including use of equipment that meets specific emission standards. Dust (particulate matter) has the potential of affect human health; however, the effects of fugitive dust would be less than significant with APM AQ-1 (Fugitive Dust Control Plan). APM AQ-2 (On-Site Off-Road Equipment Emissions Control) would minimize the emissions from use of vehicles on site. In addition, most construction would be short term and would occur in locations remote from residences, schools, and other sensitive receptors. Seismic impacts on workers during construction would be less than significant, and the project would not exacerbate existing seismic conditions. Hazards impacts would be less than significant. During construction, the project would be required to have a hazardous materials business plan (APM HAZ-1) that contains information regarding the presence and storage of hazardous materials and a spill prevention, control, and countermeasures plan (APM HAZ-2) on site to prevent spills and ensure safety. The project site is located 3,450 feet away from the nearest sensitive receptor, and noise levels from construction at any time would be below the threshold established and considered acceptable by ordinances, as applicable. Operation and maintenance activities would be comparable to current activities and no additional impacts to human beings would occur. Therefore, project impacts would be less than significant.

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