DRAFT
Supplement to the Revised Commercial WECS 20 Permit Project EIR for the Desert Hot Springs Wind Energy Repowering Project

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MAY 2019

Printed on 30% post-consumer recycled material.

TABLE OF CONTENTS

Section **Page No.**

FIGURES

TABLES

APPENDICES

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AB	Assembly Bill
ADT	average daily traffic
amsl	above mean sea level
APN	Assessor's Parcel Number
APWRA	Altamont Pass Wind Resource Area
AQMP	air quality management plan
BAU	business as usual
BLM	U.S. Bureau of Land Management
CAAQS	California Ambient Air Quality Standards
CadnaA	Computer-Aided Noise Abatement
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards
CalRecycle	California Resources Recycling and Recovery
CAP	climate action plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CH_4	methane
City	City of Desert Hot Springs
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
County	County of Riverside
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CVAG	Coachella Valley Association of Governments
CVCC	Coachella Valley Conservation Commission
CVMSHCP	Coachella Valley Multiple Species Habitat Conservation Program
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DPM	diesel particulate matter
EIR	environmental impact report
EO	Executive Order

Acronym/Abbreviation	Definition
EPA	U.S. Environmental Protection Agency
EUI	Energy Unlimited Inc.
FAA	Federal Aviation Administration
FEIR	final environmental impact report
FESA	federal Endangered Species Act
FHWA	Federal Highway Administration
GHG	greenhouse gas
GWP	global warming potential
HAP	hazardous air pollutant
HFC	hydrofluorocarbon
I	Interstate
IPCC	Intergovernmental Panel on Climate Change
JPR	Joint Project Review
kW	kilowatt
LCFS	Low Carbon Fuel Standard
L_{eq}	equivalent sound level
LST	localized significance threshold
MBTA	Migratory Bird Treaty Act
MM	mitigation measure
MMRP	Mitigation Monitoring and Reporting Program
MMT	million metric tons
MOU	Memorandum of Understanding
MPO	metropolitan planning organization
MT	metric ton
MW	megawatt
MWh	megawatt-hour
MWD	Municipal Water District
N_2O	nitrogen dioxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NHTSA	National Highway Traffic Safety Administration
NF_3	nitrogen trifluoride
NOP	Notice of Preparation
NO_x	oxides of nitrogen
NO_2	nitrogen dioxide
NRHP	National Register of Historic Places
NWP	Nationwide Permit
O&M	operations and maintenance
O_3	ozone
OHWM	ordinary high water mark
PFC	perfluorocarbon
$PM_{2.5}$	particulate matter 2.5 microns or less in diameter
PM_{10}	particulate matter 10 microns or less in diameter

Acronym/Abbreviation	Definition
PPV	peak particle velocity
PRC	Public Resources Code
Project	Desert Hot Springs Wind Energy Repowering Project
RCNM	Roadway Noise Construction Model
RMOC	Reserve Management Oversight Committee
RMUC	Reserve Management Unit Committee
RPS	Renewable Portfolio Standard
RTP	regional transportation plan
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCADA	Supervisory Control and Data Acquisition
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SEIR	supplemental environmental impact report
SF_6	sulfur hexafluoride
SLCP	short-lived climate pollutant
SLF	Sacred Lands File
SO_2	sulfur dioxide
SR	State Route
SRT	source-receptor area
SSAB	Salton Sea Air Basin
TAC	toxic air contaminant
TPPS	Transportation Project Prioritization Study
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
Vdb	vibration decibel
WECS	Wind Energy Conversion System
WRI	Wildlife Research Institute, Inc.
WTG	wind turbine generator
ZEV	zero emissions vehicle
ZNE	zero net energy

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CHAPTER 1
EXECUTIVE SUMMARY

This section provides a summary for the Draft Supplemental Environmental Impact Report (Draft SEIR) for Desert Hot Springs Wind Energy Repowering Project (Project). In addition, this section provides a summary of the Project, areas of known controversy and issues to be resolved, a summary of Project alternatives, and a summary of all Project impacts, associated mitigation measures, and the level of significance after mitigation is applied.

1.1 INTRODUCTION

In 1985, the County of Riverside approved the Wind Energy Conversion System (WECS) 20 Wind Park Project, which was proposed by Energy Unlimited, Inc. (EUI), on the same Project site, for the development of 128 65-kilowatt wind turbines. This project was originally constructed in 1984 with 65 wind turbines, with eight additional turbines being added on site a few years later. The existing on-site facility is currently operating with 69 turbines, as approximately four of the original turbines have since been decommissioned. The Project site, including the WECS 20 Wind Park facility, was annexed into the City of Desert Hot Springs (City) in 1994.

The City received applications from EUI in 2000 to install eight new wind turbines within the existing WECS 20 Wind Park facility. The Conditional Use Permit and accompanying variances were approved by the City in January 2001. Construction of the eight turbines had not commenced by the time the permits expired two years after issuance. In 2003, EUI applied with the City to have the permits reapproved. In 2009, the City certified the WECS 20 Permit Project Final Environmental Impact Report (WECS 20 FEIR) evaluating the potentially significant environmental impacts of the proposed eight-turbine project and approved the corresponding Conditional Use Permit and variance applications.

The potentially significant environmental impacts identified in the WECS 20 FEIR were reduced to a level considered less than significant through the adoption of mitigation measures that would avoid or substantially reduce impacts. No significant and unavoidable impacts were identified to occur in the WECS 20 FEIR. As of this date, the project described and analyzed in the WECS 20 FEIR has not been implemented.

In 2018, the City received an application from Desert Hot Springs Wind, LLC (Project Applicant) to decommission the existing 69 wind turbines within the WECS 20 Wind Park facility and construct and operate up to four new wind turbines generally located within and adjacent to existing footprints of the current wind turbines.

Pursuant to Section 21166 of the California Environmental Quality Act (CEQA) Public Resources Code 21000 et seq., and Section 15163(a) of the CEQA Guidelines, the City may choose to prepare

a supplement to an Environmental Impact Report (EIR) rather than a subsequent EIR if (1) any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and (2) only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation. In addition, pursuant to Section 15163(b), the supplement to the EIR need contain only the information necessary to make the previous EIR adequate for the project as revised.

Given the similarities between the proposed Project and the Revised Commercial WECS 20 Permit project for which the WECS 20 FEIR was prepared, the City has determined that a Supplement to the previously certified FEIR is the appropriate document to address and evaluate the environmental effects of the Project. Thus, this Draft SEIR provides minor additions and revisions to the WECS 20 FEIR to make the WECS 20 FEIR adequate in assessing and disclosing potential impacts to the physical environment associated with Project. This document provides relevant information for consideration by decision-makers and the general public. Additionally, this Draft SEIR fulfills the CEQA environmental review requirements for the proposed Conditional Use Permit (CUP No. 01-18), Variance (VAR No. 01-18), and waters/wetlands permits required by California Department of Fish and Wildlife, U.S. Army Corps of Engineers, and Regional Water Quality Control Board.

1.2 PROJECT LOCATION

The approximately 160-acre Project site is located in the southwestern portion of the City of Desert Hot Springs in western Riverside County. The Project site is bordered by undeveloped land to the north, south, and west, and Municipal Water District (MWD) facilities to the east. Downtown Desert Hot Springs is located approximately 6 miles east of the Project site, and the Interstate (I-) 10/State Route (SR-) 62 interchange is located approximately 2.2 miles to the south. Primary access to the Project site would continue to be provided via an existing private access off Windhaven Road. The Project site consists of the Assessor's Parcel Number (APN) 667-160-001.

1.3 PROJECT DESCRIPTION

The Project would produce up to approximately 17 megawatts (MW) of wind energy and would consist of up to four new wind turbines with a range of approximately 2.0 MW to 4.2 MW in nameplate capacity per turbine. In addition to the new wind turbines, the Project includes the following primary components, which are described in detail in the following sub-sections:

- Decommissioning of approximately 69 existing wind turbines and the appropriate ancillary equipment.
- Construction of new underground collection lines starting at the southernmost new turbine, heading north, connecting to each of the other three new turbines. From this point, the

collection will either continue underground in the center of the existing access road to the off-site substation (located on APN 516030014) or it will connect to the existing overhead 12-kilovolt collection line system on site that continues to the off-site substation (located on APN 516030014).

- Construction of temporary and permanent access roads between turbines, as well as improvements to existing private roadways to accommodate construction and delivery of equipment.
- Construction of a temporary on-site laydown and parking area.
- Installation of one new temporary and one new permanent meteorological tower, each up to approximately 309 feet tall.
- Decommissioning of the new wind turbines at the end of their useful life.

1.4 PROJECT OBJECTIVES

Local Purpose and Need

The Project will replace an existing wind energy facility containing approximately 69 antiquated wind turbines. Many of these wind turbines have been in operation for approximately 30 years and consist of several different models and sizes. While most of these wind turbines are still in operation producing energy, they are much less efficient than current wind turbine technology, require significant ongoing maintenance, and are generally reaching the end of their intended lifespan. The Project would significantly improve the energy production capability of the Project site by deploying new, efficient, state-of-the-art, wind turbine technologies that would generate more power per wind turbine and require less maintenance compared to the existing wind turbine facility. The wind energy generation on the Project site would become more reliable for more consistent energy production with less downtime or loss in energy.

Statewide Purpose and Need

In 2002, California established its Renewables Portfolio Standard (RPS) Program with the goal of increasing renewable energy in the state's electricity mix to 20% by 2010. This standard became law in September 2006, when Governor Arnold Schwarzenegger signed Senate Bill (SB) 107. The 2004 Energy Report Update further recommended increasing the target, and Governor Schwarzenegger's 2008 Executive Order (EO) S-14-08 increased the goal to 33% by 2020. On April 12, 2011, Governor Jerry Brown signed SB X1-2, which expanded the RPS target established in SB 107 from 20% by 2010 to a target of 33% by December 2020. The Project would produce up to 17 megawatts (MW) of wind energy, which would help support California in meeting established RPS goals.

By January 1, 2012, the California Public Utilities Commission (CPUC) was required to establish the quantity of electricity products from eligible renewable energy resources to be procured by obligated load-serving entities (LSEs), which provide electric service to individual and wholesale customers, to achieve targets of 20% by December 31, 2013; 25% by December 31, 2016; and 33% by December 31, 2020. In addition to the obligated load-serving entities covered by SB 107, SB X1-2 applies the RPS requirements to local, publicly owned electric utilities.

SB 350, known as the Clean Energy and Pollution Reduction Act of 2015, increased the RPS target from 33% to 50% by December 31, 2030. CPUC would be responsible for enforcement of the RPS for investor-owned utilities, electric service providers, and community choice aggregators, while the California Energy Commission and the California Air Resources Board will enforce the requirements for local, publicly owned electric utilities.

Senate Bill 100

Senate Bill 100 accelerates California's current mandate to achieve 50% of its electricity from renewable sources from 2030 up to 2026; and further establishes that California will generate 60% renewable electricity by 2030 and 100% by 2045.

Wind energy and other renewable energy sources are critical for meeting California's RPS requirements. In addition to helping the state meet its renewable energy goals, the Project would also provide economic benefits for the local economy during both the construction and operation phases including construction jobs, an increased tax base, and both a temporary increase in and a long-term continuation of local business activity.

Project Objectives

Consistent with this purpose and need, the primary objectives of the Project are as follows:

- **Objective 1:** Assist California in meeting its RPS target of 100% of the energy generated in the state being produced by renewable energy sources by December 2045.
- **Objective 2:** Generate approximately twice the energy on the Project site with the same electric capacity compared to the existing on-site wind turbines.
- **Objective 3:** Reduce the overall development footprint and visual "clutter" on the Project site by removing the existing on-site wind turbines and replacing them with new modern wind turbines at a much lower replacement ratio.
- **Objective 4:** Reduce the turbine blade rotational speeds, increase the rotor height, and expand the distances between the wind turbines on the Project site to allow for more visibility to avian species and increase avoidance potential.

- **Objective 5:** Improve worker safety on the Project site by replacing the existing on-site wind turbines with new modern turbines that include advanced safety features and technology.
- **Objective 6:** Improve both local and regional grid stability by repowering the Project site using new modern turbines with the capability to provide greater reactive power control.
- **Objective 7:** Create new tax revenues in Riverside County.
- **Objective 8:** Construct and operate a commercial wind facility prior to the December 30, 2020, expiration of the federal tax credit.
- **Objective 9:** Construct and operate a wind energy project that can attract commercially available financing.

1.5 ISSUES OF CONCERN

Pursuant to CEQA Guidelines Section 15123(b), a summary section must address areas of controversy known to the lead agency, including issues raised by agencies and the public, and it must also address issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects.

A public scoping meeting was held on September 13, 2018. The purpose of this meeting was to seek input from public agencies and the general public regarding the environmental issues and concerns that may potentially result from the Project.

A Notice of Preparation (NOP) for the Project was publicly circulated starting on August 20, 2018. The purpose of circulating the NOP was to solicit input regarding the scope and content of the environmental information to be included in the Draft SEIR. The Draft SEIR was distributed to the State Clearinghouse, responsible agencies, and other interested parties for a 30-day public review period extending from August 20, 2018, through September 18, 2019. A summary of written comment letters received in response to the NOP is provided in Table 1-1. The written comments and the NOP are included as Appendix B to this Draft SEIR.

Table 1-1
Summary of Comments Received on the NOP

Commenter	Date	Brief Summary of Environmental Issues Raised	EIR Chapter/Section Where Comment is Addressed
Federal Agencies			
U.S. Fish and Wildlife Service	September 18, 2018	Impacts to migratory birds and golden eagles (*Aquila chrysaetos*).	4.3, Biological Resources
State Agencies			
Native American Heritage Commission	August 31, 2018	AB 52 and SB 18 processes and the protection of cultural and tribal cultural resources.	4.4, Cultural and Tribal Cultural Resources
Regional and Local Agencies			
Riverside County Airport Land Use Commission (ALUC)	August 24, 2018	ALUC and Federal Aviation Administrative review of the Project.	Appendix A, Section 15163 Study
Coachella Valley Association of Governments (CVAG)	August 30, 2018	Conservation Area of the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) and Joint Project Review (JPR) process	4.3, Biological Resources
South Coast Air Quality Management District (SCAQMD)	September 11, 2018	Air quality and health risk assessment modeling, calculations, data, and analysis.	4.2, Air Quality
Native American Tribes			
Augustine Band of Cahuilla Indians	September 12, 2018	Protection of cultural and tribal cultural resources.	4.4, Cultural and Tribal Cultural Resources
Private Organizations and Members of the Public			
Sierra Club	September 17, 2018	Impacts to avian species	4.3, Biological Resources

1.6 PROJECT ALTERNATIVES

CEQA Guidelines Section 15126.6 requires consideration and discussion of alternatives to the proposed project in an EIR. In determining an appropriate range of Project alternatives to be evaluated in this Draft SEIR, a number of possible alternatives were initially considered but ultimately rejected: (1) alternate land uses; (2) alternate sites; (3) retrofit alternative. These Project alternatives were rejected because they could not accomplish the basic Project objectives; they would not have resulted in a reduction of environmental impacts; or they were considered infeasible to construct or operate. After rejecting the aforementioned alternatives, the City selected three additional Project Alternatives for further consideration. These alternatives are reviewed in Chapter 6, Alternatives to the Project, of this SEIR and are summarized below.

Alternative 1 – No Project Alternative

Under this Project Alternative, implementation of the Project would not occur. The Project site would remain unchanged. Development activities related to the decommissioning of the existing on-site wind turbines, and construction and operation of the four new wind turbines and associated improvements, would not occur.

Under this scenario, the Project site would continue to operate as a commercial wind energy facility, consistent with the existing conditions. Operations and maintenance of the existing facility would continue to occur consistent with the baseline conditions. However, given the age and condition of many of the existing on-site wind turbines, it is assumed that many of the existing on-site wind turbines would eventually be taken offline and remain in place until such a time that it becomes impractical to continue operations and the entire facility is decommissioned. Under this alternative, the older turbines would eventually be decommissioned. It is assumed that following the eventual decommissioning of the existing turbines, the Project site would not be developed with new turbines (repowered).

Alternative 2 – Reduced Decommissioning Alternative

Under the Reduced Decommissioning Alternative, the Project site would still be repowered with the four new wind turbines. However, instead of decommissioning and removing all 69 existing on-site wind turbines, only those existing turbines that are in the footprint of the new turbines would be removed, while the other existing turbines would remain in place. Since the four new wind turbines would produce enough energy to meet the Project Applicant's contractual obligations, the remaining existing turbines would be taken offline but remain standing.

Alternative 3 – Reduced Footprint Alternative

Under the Reduced Footprint Alternative, the existing on-site wind turbines would be decommissioned and removed from the Project, and the Project would be constructed and operated as planned on the Project site. However, instead of four new wind turbines, only two new wind turbines would be constructed and operated as part of the Project.

1.7 SUMMARY OF ENVIRONMENTAL IMPACTS

This Draft SEIR has been prepared to assess the potentially significant effects on the environment that could result from implementation of the Project. For a detailed discussion regarding potential significant impacts, please see Chapter 4, Environmental Analysis, of this Draft SEIR.

As required by CEQA, a summary of the Project's impacts identified in this SEIR is provided in Table 1-2 below. Also provided in Table 1-2 is a list of the proposed mitigation measures that are

recommended in response to the potentially significant impacts identified in the SEIR, as well as a determination of the level of significance of the impacts after implementation of the recommended mitigation measures. Additional mitigation measures were identified in the Section 15163 Study (Appendix A) and will be included along with the mitigation measures identified in the SEIR as part of the mitigation monitoring and reporting program for the Project. The Project would be required to comply with the mitigation measures adopted by the City of Desert Hot Springs as part of the WECS 20 FEIR, as revised. Where necessary, minor refinements are recommended to better tailor the existing measures to the current Project; text changes are shown in underline (additional text) and ~~strikethrough~~ (removed text).

Table 1-2
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	In the WECS 20 EIR	In This Supplemental EIR			New Impact or Increase in Severity of Impact?
	Level of Significance Before/After Mitigation (if applicable)	Level of Significance Before Mitigation	Mitigation Measure (if applicable)	Level of Significance After Mitigation	
Aesthetics					
Would the project have a substantial adverse effect on a scenic vista?	Potentially significant/Less than significant	Potentially Significant	MM-AES-1 The ~~eight~~ wind turbines would be painted white, with a matte or galvanized finish. ~~The storage building would be painted in an earth-tone, such as beige.~~ MM-AES-2 All Project grading will comply with the City's regulations in order to minimize adverse impacts to viewsheds. MM-AES-3 Upon removal of the ~~16 Bonus~~ wind turbines, the area where each individual ~~Bonus~~ wind turbine was located shall be remediated ~~remedied~~. The site shall be evaluated and any soil contamination shall be removed; structural foundations to be excavated to accommodate Project turbines ~~(cutting to six feet below grade)~~ and all manmade debris shall be removed from the site; and the area shall be replanted with plant material native to the Coachella Valley. Monitoring of all such activities shall be undertaken by a qualified biological monitor, who shall file a written report of findings to the City upon completion of the site remediation as outlined above. MM-AES-4 ~~During ongoing operation and maintenance of the Project, only surplus turbine parts too large to be stored in the storage building would be stored in the open storage area. Prior to storing any additional items in the open storage area which are not large turbine parts, a list of said items would be submitted in writing to the City for approval.~~ Decommissioned wind turbines, including inoperable or wrecked machinery, motor vehicles, construction equipment, and construction debris will not be stored on site. ~~MM-AES-5 The outdoor storage area shall be annually inspected by the City.~~ MM-AES-6 No advertising sign or logo shall be placed or painted on any commercial WECS. MM-AES-7 No commercial WECS shall be located where the center of the tower is within 1,320 feet (0.25 miles) of State Route 62. ~~MM-AES-8 All aspects of the Project's development shall adhere to Wind Energy Conversion Systems (WECS) requirements as adopted in Section 159.08.030(2)(J) of the City's Municipal Zoning Ordinance.~~	*Less than significant*	No
Would the project substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Potentially significant/Less than significant	Less than significant	MM-AES-1 through MM-AES-7	*Less than significant*	No
Would the project substantially degrade the existing visual character or quality of the site and its surroundings?	Potentially significant/Less than significant	Potentially Significant	MM-AES-1 through MM-AES-7	*Less than significant*	No
Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Potentially significant/Less than significant	Potentially Significant	MM-AES-9 All non-Federal Aviation Administration required lighting equipment and devices would be shielded or recessed so that direct light and glare are contained within the boundaries of the Project site, away from adjoining properties and public rights-of-way.	*Less than significant*	No

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	Level of Significance Before/After Mitigation (if applicable)	Level of Significance Before Mitigation	Mitigation Measure (if applicable)	Level of Significance After Mitigation	
			MM-AES-10 Project development shall comply with the City's adopted outdoor lighting standards as specified in Section 17.16.140 ~~159.08.030(2)(J)~~ of the Desert Hot Springs Municipal Zoning Code. MM-AES-11 Lighting plans, excluding those required by the FAA, indicating proposed lighting levels and methods to minimize impact on adjacent properties shall be reviewed and approved by the City prior to installation. Modification, alteration, or addition to any approved lighting shall not be undertaken prior to approval by the City.		
			Air Quality		
Would the project conflict with or obstruct implementation of the applicable air quality Plan?	Potentially significant/Less than significant	Less than significant	Although air quality impacts resulting from implementation of the Project would be less than significant, MM-AQ-12 through MM-AQ-17 required in the WECS 20 FEIR shall still be applied to the Project in an effort to further minimize already less-than-significant impacts: MM-AQ-12 Prior to the commencement of any demolition, grading, or construction activities, the Project applicant will prepare and submit for City Engineer Department review and approval a Fugitive Dust (PM10) Mitigation Plan. MM-AQ-13 Traffic speeds of no greater than 15 miles per hour would be observed on all unpaved roadways. MM-AQ-14 All grading operations would be suspended when wind speed (as instantaneous gusts) exceeds 25 miles per hour. MM-AQ-15 Trucks importing and/or exporting soil or other loose material would be covered and/or watered down prior to entering public streets to minimize potential fugitive dust. MM-AQ-16 Soil binders would be spread on unpaved roads and parking areas, and/or AQMD approved soil stabilizers would be applied according to manufacturer's specifications to all inactive construction areas (previously graded areas that remain inactive for 96 hours). MM-AQ-17 SCAQMD Rule 403 shall be adhered to, ensuring the clean-up of construction related dirt on approach routes to the site.	Less than significant	No
Would the project violate any air quality standard or contribute substantially to an existing or projected violation?	Potentially significant/Less than significant	Less than significant	Although air quality impacts resulting from implementation of the Project would be less than significant, MM-AQ-12 through MM-AQ-17 required in the WECS 20 FEIR shall still be applied to the Project in an effort to further minimize already less-than-significant impacts.	Less than significant	No
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 (including releasing emissions which exceed quantitative threshold emissions which exceed quantitative thresholds for ozone precursors)?	Potentially significant/Less than significant	Potentially significant	Although air quality impacts resulting from implementation of the Project would be less than significant, MM-AQ-12 through MM-AQ-17 required in the WECS 20 FEIR shall still be applied to the Project in an effort to further minimize already less-than-significant impacts.	Less than significant	No

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Environmental Topic	In the WECS 20 EIR	In This Supplemental EIR			New Impact or Increase in Severity of Impact?
	Level of Significance Before/After Mitigation (if applicable)	Level of Significance Before Mitigation	Mitigation Measure (if applicable)	Level of Significance After Mitigation	
Would the project expose sensitive receptors to substantial pollutant concentrations?	Potentially significant/Less than significant	Less than significant	Although air quality impacts resulting from implementation of the Project would be less than significant, MM-AQ-12 through MM-AQ-17 required in the WECS 20 FEIR shall still be applied to the Project in an effort to further minimize already less-than-significant impacts.	Less than significant	No
Would the project create objectionable odors affecting a substantial number of people?	Less than significant	Less than significant	Although air quality impacts resulting from implementation of the Project would be less than significant, MM-AQ-12 through MM-AQ-17 required in the WECS 20 FEIR shall still be applied to the Project in an effort to further minimize already less-than-significant impacts.	Less than significant	No
Biological Resources					
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 Game or U.S. Fish and Wildlife Service?	Potentially significant/Less than significant	Potentially significant	MM-BIO-18 ~~Thirty days prior to commencement of construction, the Project site shall be resurveyed by a qualified biologist for the presence of sensitive species. Additionally, a qualified biological monitor would be on-site during all construction activities. The biological monitor will have the authority to halt or divert construction activities, which may be in violation of the stipulations herein. The biological monitor will file a final report with the City Planning Department at the conclusion of construction.~~ The Project Applicant shall adhere to and implement all applicable provisions of the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP). This includes adherence with requirements set forth in the CVMSHCP and outlined in the Project's Final Joint Project Review (JPR) pertaining to desert tortoise, burrowing owl, plants and other protected biological resources and detailed in subsequent mitigation measures. In addition to those mitigation requirements, the Project Applicant shall also adhere to the following provisions required by the CVMSHCP and the Project's Final JPR: **Palm Springs Pocket Mouse** To avoid impacts to the Palm Springs pocket mouse and its habitat in the Upper Mission Creek/Big Morongo Canyon and Willow Hole Conservation Areas, Flood Control-related construction activities will comply with the following avoidance and minimization measures: • **Clearing**. For construction that would involve disturbance to Palm Springs pocket mouse habitat, activity should be phased to the extent feasible and practicable so that suitable habitat islands are no farther than 300 feet apart at any given time to allow pocket mice to disperse between habitat patches across non-suitable habitat (i.e., unvegetated and/or compacted soils). Prior to project construction, a biological monitor familiar with this species should assist construction crews in planning access routes to avoid impacts to occupied habitat as much as feasible (i.e., placement of preferred routes on project plans and incorporation of methods to avoid as much suitable habitat/soil disturbance as possible). Furthermore, during construction activities, the biological monitor will ensure that connected, naturally vegetated areas with sandy soils and typical native vegetation remain intact to the extent feasible and practicable. Finally, construction that involves clearing of habitat should be avoided during the peak breeding season (approximately March to May), and activity should be limited as much as possible during the rest of the breeding season (January to February and June to August). • **Revegetation**. Clearing of native vegetation (e.g., creosote, rabbitbrush, burrobush, cheesebush) should be followed by revegetation, including natural reestablishment and other means, resulting in habitat types of equal or superior biological value for Palm Springs pocket mouse.	Less than significant	No

Table 1-2
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	In the WECS 20 EIR	In This Supplemental EIR			New Impact or Increase in Severity of Impact?
	Level of Significance Before/After Mitigation (if applicable)	Level of Significance Before Mitigation	Mitigation Measure (if applicable)	Level of Significance After Mitigation	
			• **Trapping/Holding**. All trapping activity should be conducted in accordance with accepted protocols and by a qualified biologist who possesses a Memorandum of Understanding with CDFW for live-trapping of heteromyid species in Southern California. • **Translocation**. Should translocation between distinct population groups be necessary, as determined through the Adaptive Management and Monitoring Program, activity should be conducted by a qualified biologist who possesses a Memorandum of Understanding with CDFW for live-trapping of heteromyid species in Southern California. Trapping and subsequent translocation activity should be conducted in accordance with accepted protocols. Translocation programs should be coordinated by or conducted by the Coachella Valley Conservation Commission (CVCC) and/or Riverside Management Oversight Committee (RMOC) to determine the appropriate trapping, holding, marking, and handling methods and potential translocation sites. **Le Conte's Thrasher** In modeled Le Conte's thrasher habitat in all the Conservation Areas, during the nesting season, January 15 - June 15, prior to the start of construction activities, surveys will be conducted by an Acceptable Biologist on the construction site and within 500 feet of the construction site, or to the property boundary if less than 500 feet. If nesting Le Conte's thrashers are found, a 500 foot buffer, or to the property boundary if less than 500 feet, will be established around the nest site. The buffer will be staked and flagged. No construction will be permitted within the buffer during the breeding season of January 15 - June 15 or until the young have fledged. **Land Use Adjacency Guidelines** The following Land Use Adjacency Guidelines shall be implemented during the Project design within the Conservation Area to minimize edge effects: • **Drainage**. Proposed development adjacent to or within a Conservation Area shall incorporate plans to ensure that the quantity and quality of runoff discharged to the adjacent Conservation Area is not altered adversely compared with existing conditions. Storm water systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials, or other elements that might degrade or harm biological resources or ecosystem processes within the adjacent Conservation Area. • **Toxics**. Land uses proposed adjacent to or within a Conservation Area that use chemicals or that generate bioproducts, such as manure, that are potentially toxic or may adversely affect wildlife and plant species, habitat, or water quality shall incorporate measures to ensure that application of such substances does not result in any discharge to the adjacent Conservation Area. • **Lighting**. For proposed development adjacent to or within a Conservation Area, lighting shall be shielded and directed toward the developed area. Landscape shielding or other appropriate methods shall be incorporated in Project designs to minimize the effects of lighting adjacent to or within the adjacent Conservation Area in accordance with the guidelines to be included in the Implementation Manual.		

Table 1-2
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	In the WECS 20 EIR Level of Significance Before/After Mitigation (if applicable)	In This Supplemental EIR Level of Significance Before Mitigation	Mitigation Measure (if applicable)	Level of Significance After Mitigation	New Impact or Increase in Severity of Impact?
			• **Noise**. Proposed development adjacent to or within a Conservation Area that generates noise in excess of 75 dBA Leq hourly shall incorporate setbacks, berms, or walls as appropriate to minimize the effects of noise on the adjacent Conservation Area in accordance with the guidelines to be included in the Implementation Manual. • **Invasive Species**. Invasive, non-native plant species shall not be incorporated in the landscape for land uses adjacent to or within a Conservation Area. Landscape treatments within or adjacent to a Conservation Area shall incorporate native plant materials to the maximum extent feasible. **Sand Transport Areas** Project activities, including operations and maintenance activities, in fluvial sand transport areas in the Conservation Area will be conducted in a manner to maintain the fluvial sand transport capacity of the system. **MM-BIO-19** All construction personnel will participate in a biological awareness training program prior to commencement of any decommissioning or construction activities, and a report verifying same would be provided to the City Planning Department. **MM-BIO-20** Upon removal of the ~~16 Bonus~~ wind turbines, the area where each individual ~~Bonus~~ wind turbine was located shall be remediated ~~remedied~~. The site shall be evaluated and any soil contamination shall be removed, ~~structural foundations (cutting to six feet below grade) and~~ all manmade debris shall be removed from the site, and the area shall be replanted with plant material native to the Coachella Valley. Monitoring of all such activities shall be undertaken by a qualified biological monitor, who shall file a written report to the City of findings upon completion of the site remediation as outlined above. **MM-BIO-21** Native plants identified under the California Desert Native Plant Act located in areas anticipated to be impacted shall ~~All barrel cacti located in areas anticipated to be impacted by the Project would~~ be transplanted into portions of the property that will remain as natural open space. The transplantation sites will, as closely as possible, match the original plant ~~barrel cacti~~ locations with regards to soils, slope, and aspect. A permit to harvest the protected plants shall be obtained from the Riverside County Commissioner prior to construction. **MM-BIO-22** All turbine sites will be clearly marked prior to grading in order to limit damage to adjacent vegetation. Grading and vegetation removal would be limited to construction areas identified in the Project grading plan. To ensure compliance with the California Fish and Game Code, and to avoid potential impacts to nesting birds, vegetation removal activities shall be conducted outside the general bird nesting season (January 15 through August 31). If vegetation cannot be removed outside the bird nesting season, a pre-construction nesting bird survey by a qualified biologist is required prior to vegetation removal.		

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			MM-BIO-23 Construction and maintenance traffic will utilize existing roads, and vehicle parking will be limited to existing disturbed areas. **MM-BIO-24** Grading on-site will be limited to construction areas identified in the Project grading plan only. All tower sites and access road locations would be clearly marked prior to the initiation of any ground-disturbing activity. All staging areas shall occur on previously-disturbed areas. **MM-BIO-25** During construction and ongoing maintenance operations, wind farm personnel will be restricted to approved dirt roads only. No unauthorized grading of the site will be permitted. **MM-BIO-26** Applicant will be responsible for controlling and removing all trash and/or windblown debris generated on the site during construction and routine maintenance operations. **MM-BIO-27** All construction personnel will participate in a biological awareness training program prior to commencement of construction activities, and a report verifying same would be provided to the City Planning Department. **MM-BIO-28** ~~In order to ensure that no desert tortoises are harmed and that the tortoises can continue to utilize the Project site during the operation and maintenance phases of the Project, a desert tortoise survey will be performed within 24 hours prior to commencement of construction, and all construction activities will be monitored by a qualified biologist.~~ A desert tortoise preconstruction survey must be conducted during the window between February 15 and October 31. Pre-construction surveys require 100% coverage of the survey area. If no sign is found, a clearance survey is not required. A pre-construction survey is valid for 90 days or indefinitely if tortoise-proof fencing is installed around the development site. If fresh sign is located, the development area must be fenced with tortoise-proof fencing and a clearance survey conducted during the clearance window. Desert tortoise clearance surveys shall be conducted during the clearance window from February 15 to June 15 and September 1 to October 31 or in accordance with the most recent Wildlife Agency protocols. Clearance surveys must cover 100% of the development area. A clearance survey must be conducted during different tortoise activity periods (morning and afternoon). All tortoises encountered will be moved from the development site to a specified location. Prior to issuance of the permits, the Coachella Valley Conservation Commission (CVCC) will either use the Permit Statement Pertaining to High Temperatures for Handling Desert Tortoises and Guidelines for Handling Desert Tortoises During Construction Projects, revised July 1999, or develop a similar protocol for relocation and monitoring of desert tortoise, to be reviewed and approved by the Wildlife Agencies. Thereafter, the protocol will be revised as needed based on the results of monitoring and other information that becomes available. For operations and maintenance (O&M) activities in the Conservation Areas, the Permittees shall ensure that personnel conducting such activities are instructed to be alert for the presence of desert tortoise. If a tortoise is spotted, activities adjacent to the tortoise's location will be halted and the tortoise will be allowed to move away from the activity area. If the tortoise is not moving, it will be relocated by an Acceptable Biologist to nearby suitable habitat and placed in the shade of a shrub. To the maximum extent feasible, O&M activities will avoid the period from February 15 and October 31.		

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			Utility development protocols have been developed to avoid or minimize potential adverse impacts to the desert tortoise in the Conservation Areas from utility and road right-of-way projects, such as the installation and maintenance of water, sewer, and electric lines and roadway maintenance. The objectives of these protocols are to provide reliable and consistent direction on utility development within the Conservation Areas. Two utility development protocols, inactive and active season, provide specific direction on site preparation and construction phases of utility projects in the Conservation Areas. The protocols include steps to be followed during the desert tortoise active and/or inactive season. The inactive season protocol must be used for utility maintenance or development within the November 1 to February 14 time frame; the active season protocol must be used for utility maintenance or development within the February 15 to October 31 time frame. Deviations from these time frames must be presented to the Riverside Management Oversight Committee (RMOC). **Inactive Season Protocol** This protocol is applicable to pre-construction and construction phases of utility Covered Activity projects occurring between November 1 and February 14. These protocols apply only to the site preparation and construction phases of projects. The project proponent must follow the eight pre-construction protocol requirements listed below: 1. A person from the entity contracting the construction shall act as the contact person with the representative of the appropriate reserve management unit committee (RMUC). He/she will be responsible for overseeing compliance with the protective stipulations as stated in this protocol. 2. Prior to any construction activity within the Conservation Areas, the contact person will meet with the representative of the appropriate RMUC to review the plans for the project. The representative of the appropriate RMUC will review alignment, pole spacing, clearing limits, burrow locations, and other specific project plans which have the potential to affect the desert tortoise. He or she may recommend modifications to the contact person to further avoid or minimize potential impacts to desert tortoise. 3. The construction area shall be clearly fenced, marked, or flagged at the outer boundaries to define the limits of construction activities. The construction right-of-way shall normally not exceed 50 feet in width for standard pipeline corridors, access roads and transmission corridors, and shall be minimized to the maximum extent Feasible. Existing access roads shall be used when available, and rights-of-way for new and existing access roads shall not exceed 20 feet in width unless topographic obstacles require greater road width. Other construction areas including well sites, storage tank sites, substation sites, turnarounds, and laydown/staging sites which require larger areas will be determined in the preconstruction phase. All construction workers shall be instructed that their activities shall be confined to locations within the fenced, flagged, or marked areas. 4. An Acceptable Biologist shall conduct pre-construction clearance surveys of all areas potentially disturbed by the proposed Project. Any winter burrows discovered in the Conservation Areas during the pre-construction survey shall be avoided or mitigated. The survey shall be submitted to the representative of the appropriate RMUC as part of plan review.		

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			5. All site mitigation criteria shall be determined in the pre-construction phase, including but not limited to seeding, barrier fences, leveling, and laydown/staging areas, and will be reviewed by the representative of the appropriate RMUC prior to implementation. 6. A worker education program shall be implemented prior to the onset of each construction project. All construction employees shall be required to read an educational brochure prepared by the representative of the appropriate RMUC and/or the RMOC and attend a tortoise education class prior to the onset of construction or site entry. The class will describe the sensitive species which may be found in the area, the purpose of the Multiple Species Habitat Conservation Plan Reserve System, and the appropriate measures to take upon discovery of a sensitive species. It will also cover construction techniques to minimize potential adverse impacts. 7. All pre-construction activities which could take tortoises in any manner (e.g., driving off an established road, clearing vegetation, etc.) shall occur under the supervision of an Acceptable Biologist. 8. If there are unresolvable conflicts between the representative of the appropriate RMUC and the contact person, then the matter will be arbitrated by the RMOC and, if necessary, by the CVCC. The following terms are established to protect the desert tortoise during utility related construction activities in the Conservation Areas and are to be conducted by an Acceptable Biologist: • An Acceptable Biologist shall oversee construction activities to ensure compliance with the protective stipulations for the desert tortoise. • Desert tortoises found above ground inside the project area during construction shall be moved by an Acceptable Biologist out of harm's way and placed in a winter den (at a distance no greater than 250 feet). If a winter den cannot be located, the U.S. Fish and Wildlife Service (USFWS) or California Department of Fish and Wildlife (CDFW) shall determine appropriate action with respect to the tortoise. Tortoises found above ground shall be turned over to the Acceptable Biologist. • No handling of tortoises will occur when the air temperature at 15 centimeters above ground exceeds 90 degrees Fahrenheit. • Desert tortoise burrows shall be avoided to the maximum extent feasible. An Acceptable Biologist shall excavate any burrows which cannot be avoided and will be disturbed by construction. Burrow excavation shall be conducted with the use of hand tools only, unless the Acceptable Biologist determines that the burrow is unoccupied immediately prior to burrow destruction. • Only burrows within the limits of clearing and surface disturbance shall be excavated. Burrows outside these limits, but at risk from accidental crushing, shall be protected by the placement of deterrent barrier fencing between the burrow and the construction area. Installation and removal of such barrier fencing shall be under the direction and supervision of an Acceptable Biologist. • For electrical transmission line and road construction projects, only burrows within the right-of-way shall be excavated. Burrows outside the right-of-way, but at risk from		

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			accidental crushing, shall be protected by the placement of deterrent barrier fencing between the burrow and the right-of-way. Installation and removal of such barrier fencing shall be under the direction and supervision of an Acceptable Biologist.
			• Tortoises in the Conservation Areas are not to be removed from burrows until appropriate action is determined by USFWS or CDFW with respect to the tortoise. The response shall be carried out within 72 hours.
			• Blasting is not permissible within 100 feet of an occupied tortoise burrow.
			• During construction, contractors will comply with the mitigation and minimization measures contained within this protocol. These measures are:
			  • All trenches, pits, or other excavations shall be inspected for tortoises by an Acceptable Biologist prior to filling.
			  • All pipes and culverts stored within desert tortoise Habitat shall have both ends capped to prevent entry by desert tortoises. During construction, all open ended pipeline segments that are welded in place shall be capped during periods of construction inactivity to prevent entry by desert tortoises.
			  • Topsoil removed during trenching shall be re-spread on the pipeline construction area following compaction of the backfill. The area shall be restored as determined during the environmental review.
			  • All test pump water will be routed to the nearest wash or natural drainage. The route will be surveyed by an Acceptable Biologist. If tortoises are found in the drainage area the Acceptable Biologist will remove the tortoises.
			  • Powerlines associated with water development, such as to provide power for pumps, should be buried underground adjacent to the pipe. All above ground structures deemed to be necessary shall be equipped with functional anti-perching devices that would prevent their use by ravens and other predatory birds, and shall adhere to the electrical distribution protocol which follows.
			  • In order to perform routine O&M of the water systems such as wells, pumps, water lines and storage tanks, etc., employees are to be trained in the area of desert tortoise education. This training will be performed on a regular basis by an Acceptable Biologist for those personnel not previously trained. The training will include at a minimum the following: identification of tortoises, burrows, and other sign; and instructions on installing tortoise barrier fencing. During the course of basic O&M, desert tortoise will be avoided. Untrained employees shall not perform maintenance operations within the reserve.
			  • All disturbance areas around poles or concrete pads will be reduced to a size just large enough for the construction activity.
			  • Areas disturbed around poles or construction pads will be restored as determined during the pre-construction process.
			  • Poles or other above ground structures necessary for electrical distribution development shall be minimized as much as possible. All above ground structures shall be equipped with functional anti-perching devices that would prevent their use by ravens and other predatory birds.
			  • In order to perform routine O&M of the electrical distribution systems such as transmission lines and poles, substations, etc., employees are to be trained in the area of desert tortoise education. This training will be performed on a regular basis by a		

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			qualified biologist for those personnel not previously trained. The training will include at a minimum the following: identification of tortoises, burrows, and other sign; and instructions on installing tortoise barrier fencing. During the course of basic O&M, desert tortoise will be avoided. Untrained employees shall not perform maintenance operations within the non-take areas. • All trash and food items shall be promptly contained and removed daily from the project site to reduce the attractiveness of the area to common ravens and other desert tortoise predators. • Construction activities which occur between dusk and dawn shall be limited to areas which have already been cleared of desert tortoises by the Acceptable Biologist and graded or located in a fenced right-of-way. Construction activities shall not be permitted between dusk and dawn in areas not previously graded. **Active Season Protocol** This protocol is applicable to pre-construction and construction phases of utility development projects occurring between February 15 and November 1. It is identical to the Inactive Season Protocol with the following additions: • Work areas shall be inspected for desert tortoises within 24 hours of the onset of construction. To facilitate implementation of this condition, burrow inspection and excavation may begin no more than seven days in advance of construction activities, as long as a final check for desert tortoises is conducted at the time of construction. • All pre-construction activities which could take tortoises in any manner (e.g., driving off an established road, clearing vegetation, etc.) shall occur under the overall supervision of an Acceptable Biologist. Any hazards to tortoises created by this activity, such as drill holes, open trenches, pits, other excavations, or any steep-sided depressions, shall be checked three times a day for desert tortoises. These hazards shall be eliminated each day prior to the work crew leaving the site, which may include installing a barrier that will preclude entry by tortoises. Open trenches, pits or other excavations will be backfilled within 72 hours, whenever possible. A 3:1 slope shall be left at the end of every open trench to allow trapped desert tortoises to escape. Trenches not backfilled within 72 hours shall have a barrier installed around them to preclude entry by desert tortoises. All trenches, pits, or other excavations shall be inspected for tortoises by a biological monitor trained and approved by the Acceptable Biologist prior to filling. • If a desert tortoise is found, the biological monitor shall notify the Acceptable Biologist who will remove the animal as soon as possible. • Only burrows within the limits of clearing and surface disturbance shall be excavated. Burrows outside these limits, but at risk from accidental crushing, shall be protected by the placement of deterrent barrier fencing between the burrow and the construction area. The barrier fence shall be at least 20 feet long and shall be installed to direct the tortoise leaving the burrow away from the construction area. Installation and removal of such barrier fencing shall be under the direction and supervision of the biological monitor. • If blasting is necessary for construction, all tortoises shall be removed from burrows within 100 feet of the blast area. **Disposition of Sick, Injured, or Dead Specimens**		

Table 1-2
Summary of Environmental Impacts and Mitigation Measures

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			Upon locating dead, injured, or sick desert tortoises under any utility or road project, initial notification by the contact representative or Acceptable Biologist must be made to the USFWS or CDFW within three working days of its finding. Written notification must be made within five calendar days with the following information: date; time; location of the carcass; photograph of the carcass; and any other pertinent information. Care must be taken in handling sick or injured animals to ensure effective treatment and care. Injured animals shall be taken care of by the Acceptable Biologist or an appropriately trained veterinarian. Should any treated tortoises survive, USFWS or CDFW should be contacted regarding the final disposition of the animals. **Activities Adjacent to and within a Conservation Area** Land uses adjacent to or within a Conservation Area shall incorporate barriers in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass, or dumping in a Conservation Area. Such barriers may include native landscaping, rocks/boulders, fencing, walls and/or signage. Further, engineered slopes associated with site development shall not extend into adjacent land in a Conservation Area. ~~MM-BIO-29 No construction activities will occur within 100 feet of desert tortoise. If a desert tortoise is found onsite, construction activities should cease within 100 feet of the animal. The desert tortoise will be allowed to move off site of its own volition.~~ ~~MM-BIO-30 No construction activities will occur within 100 feet of desert tortoise burrows. Any burrows located during preconstruction desert tortoise surveys should be fenced with temporary fencing to provide a 100-foot buffer around the burrow. Fences should consist of a non-breachable barrier and support structures.~~ ~~MM-BIO-31 Construction activities (including parking and laydown areas) will utilize existing access roads and previously-disturbed areas to the maximum extent feasible. Temporary exclusion fencing will be placed around staging areas.~~ ~~MM-BIO-32 The biological monitor will supervise and approve the construction and placement of desert tortoise exclusion fence around burrows and staging areas. The biological monitor will inspect the temporary fencing at least weekly. Corrective actions will be taken promptly to maintain the integrity of the tortoise barrier. Fencing should be dismantled and removed following Project completion.~~ ~~MM-BIO-33 The biological monitor will maintain a complete record of all desert tortoises encountered. The record shall include: location, date and time, life history, general condition, and identification numbers.~~ MM-BIO-34 Any Project-related vehicle or equipment operating on unpaved roads should not exceed a speed limit of 25 miles per hour. MM-BIO-35 Contractor will be required to keep all vehicles on existing roads. No cross-country travel will be authorized except under emergency situations.		

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			MM-BIO-36 Employees will inspect beneath parked vehicles and equipment prior to traveling. If an employee discovers a tortoise, the employee shall notify the biological monitor. MM-BIO-37 All trash will be contained in raven- and coyote-proof containers. All trash will be transported off site on a weekly basis. MM-BIO-38 No pets or firearms will be allowed within the Project's construction boundaries, or other associated work areas, at any time. MM-BIO-39 The Project will reduce water usage during construction to the extent possible, such that excess water does not act as an attractant to tortoises. MM-BIO-40 All construction materials, vehicles, and equipment will be removed from the site upon completion of the Project. MM-BIO-41 ~~Within 30 days prior to any construction activities, a focused burrowing owl survey will be conducted (using California Department of Fish and Game protocol) on the areas of the Project site anticipated to be disturbed (approximately 1.35 acres), plus a buffer area as recommended by the Project biologist. If ground-disturbing activities are delayed or suspended for more than 30 days after the survey, the site shall be resurveyed. A survey report for the Project shall be prepared and submitted to the California Department of Fish and Game for review and to the City for review and approval.~~ A burrowing owl survey shall be conducted in the Conservation Area using an accepted protocol (as determined by the Coachella Valley Conservation Commission in coordination with the Permittees and the Wildlife Agencies). Prior to development, the construction area and adjacent areas within 500 feet of the development site, or to the edge of the property if less than 500 feet, will be surveyed by an Acceptable Biologist for burrows that could be used by burrowing owl. If a burrow is located, the biologist will determine if an owl is present in the burrow. If the burrow is determined to be occupied, the burrow will be flagged and a 160-foot buffer during the non-breeding season and a 250-foot buffer during the breeding season, or a buffer to the edge of the property boundary if less than 500 feet, will be established around the burrow. The buffer will be staked and flagged. No development or operations and maintenance activities will be permitted within the buffer until the young are no longer dependent on the burrow. If the burrow is unoccupied, the burrow will be made inaccessible to owls, and the Covered Activity may proceed. If either a nesting or escape burrow is occupied, owls shall be relocated pursuant to accepted Wildlife Agency protocols. A burrow is assumed occupied if records indicate that, based on surveys conducted following protocol, at least one burrowing owl has been observed occupying a burrow on site during the past three years. If there are no records for the site, surveys must be conducted to determine, prior to construction, if burrowing owls are present. Determination of the appropriate method of relocation, such as eviction/passive relocation or active relocation, shall be based on the specific site conditions (e.g., distance to nearest suitable habitat and presence of burrows within that habitat) in coordination with the Wildlife Agencies. Active relocation and eviction/passive relocation require the preservation and maintenance of suitable burrowing owl habitat determined through coordination with the Wildlife Agencies.		

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			~~MM-BIO-42 Any burrowing owl burrows that cannot be avoided shall be mitigated at a 2:1 ratio with artificial burrows located in an adjacent protected area that provides a minimum 0.61 acres of protected habitat. The configuration of the protected habitat shall be approved by the California Department of Fish and Game. If required by the California Department of Fish and Game, the Project applicant shall provide funding for long-term management and monitoring of the protected lands.~~ ~~MM-BIO-43 If burrowing owls must be moved away from the disturbance areas, passive relocation techniques shall be used and only during the non-breeding season (September 1 to January 31). If impacts to burrowing owls are approved, then a relocation program shall be developed pursuant to California Department of Fish and Game and United States Fish and Wildlife Service review and approval.~~ ~~MM-BIO-44 Should the Project affect the foraging areas of any owls located adjacent to the Project, then the same mitigation ratio and acreage would also be recommended.~~ MM-BIO-45 Impacts to waters of the United States and streambeds under the jurisdiction of the California Department of Fish and Wildlife shall be avoided wherever feasible. If avoidance is not feasible, impacts to these features shall be mitigated on 1:1 basis, unless a higher ratio is required in any permit issued by resource agencies with jurisdiction over these features. The Project Applicant will comply with the terms of any jurisdictional wetland permit(s) obtained from the California Department of Fish and Wildlife, the U.S. Army Corps of Engineers, and the Regional Water Quality Control Board ~~Applicant will avoid impacts to washes and wash vegetation.~~ MM-BIO-46 All proposed development will incorporate the maximum amount of existing on site natural open space and native vegetation into the Project and landscaping. MM-BIO-47 Applicant will salvage desirable desert plant species that would be destroyed by Project implementation, for use in landscaped areas. MM-BIO-48 Applicant shall provide to all employees an educational brochure that describes the sensitive nature of indigenous plants, animals, and ecosystems. A copy of said educational brochure shall be submitted to the City for approval prior to issuance of any building permits. MM-BIO-49 Prior to grading, the applicant shall develop a plan to reduce the impact of non-Federal Aviation Administration required night lighting on open space and/or mitigation areas adjacent to the Project site. ~~MM-BIO-50 Within 30 days prior to construction, a preconstruction survey for Coachella Valley round-tailed ground squirrel will be conducted on the areas of the Project site anticipated to be disturbed (approximately 1.35 acres), plus a buffer area as recommended by the Project biologist. If ground-disturbing activities are delayed or suspended for more than 30 days after the preconstruction survey, the site shall be resurveyed. A survey report for the Project shall be prepared and submitted to the California Department of Fish and Game for review and to the City for review and approval.~~		

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			~~MM-BIO-51 If found on the Project site, any squirrels must be moved away from the disturbance areas, and a relocation program shall be developed pursuant to California Department of Fish and Game review and approval.~~ MM-BIO-52 Impacts to waters of the United States and streambeds under the jurisdiction of the California Department of Fish and Wildlife shall be avoided wherever feasible. If avoidance is not feasible, impacts to these features shall be mitigated on 1:1 basis, unless a higher ratio is required in any permit issued by resource agencies with jurisdiction over these features. The Project Applicant will comply with the terms of any jurisdictional wetland permit(s) obtained from the California Department of Fish and Wildlife, the U.S. Army Corps of Engineers, and the Regional Water Quality Control Board ~~Applicant will avoid impacts to washes and wash vegetation.~~ MM-BIO-53 All proposed development will incorporate the maximum amount of existing on-site natural open space and native vegetation into the Project and landscaping. MM-BIO-54 Applicant will provide to all employees an educational brochure that describes the sensitive nature of indigenous plants, animals, and ecosystems. A copy of said educational brochure shall be submitted to the City for approval prior to issuance of any building permits. MM-BIO-55 Prior to grading, the applicant shall develop a plan to reduce the impact of non-Federal Aviation Administration required night lighting on open space and/or mitigation areas adjacent to the Project site.		
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?	Potentially significant/Less than significant	No impact	None Required	No impact	No
Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Less than significant	Less than significant	MM-BIO-45 and MM-BIO-52	Less than significant	No
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	Less than significant	MM-BIO-22	Less than significant	No
Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Less than significant	Less than significant	MM-BIO-21	Less than significant	No
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	Less than significant	MM-BIO-18 through MM-BIO-28, MM-BIO-34 through MM-BIO-41, MM-BIO-45 through MM-BIO-49, and MM-BIO-52 through MM-BIO-55	Less than significant	No

Table 1-2
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	In the WECS 20 EIR	In This Supplemental EIR			New Impact or Increase in Severity of Impact?
	Level of Significance Before/After Mitigation (if applicable)	Level of Significance Before Mitigation	Mitigation Measure (if applicable)	Level of Significance After Mitigation	
Cultural and Tribal Cultural Resources					
Would the project cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?	Potentially significant/Less than significant	No impact	None required	No impact	No
Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?	Potentially significant/Less than significant	Potentially significant	MM-CUL-56 An approved Tribal Cultural Resource Monitor shall be present during any survey and/or any ground-disturbing activities. Should buried cultural deposits be encountered, the Monitor may request that destructive construction halt and the Monitor shall notify a Qualified (Secretary of the Interior's Standards and Guidelines) Archaeologist to investigate and, if necessary, prepare a mitigation plan for submission to the State Historic Preservation Officer, the Agua Caliente Tribal Historic Preservation Office, the Morongo Band of Mission Indians, the Twenty-Nine Palms Band of Mission Indians, and the Soboba Band of Luiseño Indians. MM-CUL-57 If buried cultural materials are discovered during any earth-moving operation associated with the Project, all work in that area should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds. The archaeologist shall also be required to curate specimens in a repository with permanent retrievable storage and submit a written report to the City's Community Development ~~Planning~~ Director for review and approval prior to the issuance of the first building permit ~~occupancy of the first building~~ on the site. MM-CUL-58 Once artifact analysis is completed, a final written report detailing the results of all research procedures and interpretation of the site shall be submitted to the City's Community Development Director for review and approval prior to the issuance of the first building permit ~~occupancy of the first building~~ on the site.	Less than significant	No
Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Potentially significant/Less than significant	Potentially significant	MM-CUL-59 A qualified paleontologist shall review the Project construction plans and shall create a plan for periodic monitoring in order to determine the presence or absence of older Pleistocene-age sediments that may contain fossils. If earth-moving activities reach potentially fossiliferous sediments and/or exceed 10 feet in depth, then continuous monitoring for paleontological resources, along with a program to mitigate impacts to those resources, would be implemented. The monitor should be prepared to quickly salvage fossils as they are unearthed to avoid construction delays. MM-CUL-60 If buried paleontological materials are discovered during any earth-moving operations associated with the Project, all work in that area would be halted or diverted until a qualified paleontological monitor can evaluate the nature and significance of the finds. The paleontological monitor would be empowered to temporarily stop or redirect grading activities to allow removal of abundant or large artifacts. The paleontological monitor shall also be required to curate specimens in a repository with permanent retrievable storage and submit a written report and inventory to the City's Community Development Director for review and approval prior to the issuance of the first building permit ~~occupancy of the first building~~ on the site. The report should include a discussion of the significance of all recovered specimens. The report and inventory, when submitted to the City's Community Development Director, would signify completion of the Program to mitigate impacts to paleontological resources.	Less than significant	No

Table 1-2
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	In the WECS 20 EIR	In This Supplemental EIR			New Impact or Increase in Severity of Impact?
	Level of Significance Before/After Mitigation (if applicable)	Level of Significance Before Mitigation	Mitigation Measure (if applicable)	Level of Significance After Mitigation	
Would the project disturb any human remains, including those interred outside of formal cemeteries?	Less than significant	Less than significant	MM-CUL-61 If human remains are encountered at the Project site during construction, the Riverside County Coroner shall be notified within 24 hours of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, she or he shall notify Native American Heritage Commission (NAHC) in Sacramento within 48 hours. In accordance with California Public Resources Code, Section 5097.98, NAHC must immediately notify those persons it believes to be the Most Likely Descendant (MLD) of the deceased Native American. The MLD shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains ~~County Coroner would be notified immediately, and all construction activities would be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds~~.	Less than significant	No
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 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)?	Not previously analyzed	Less than significant	None required.	Less than significant	N/A[1]
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 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?	Not previously analyzed	Potentially significant	MM-CUL-56, MM-CUL-57, and MM-CUL-58	Less than significant	N/A[2]
Greenhouse Gas Emissions					

[1] Comparison is not applicable as the 2008 EIR did not analyze impacts with regard to tribal cultural resources.
[2] Comparison is not applicable as the 2008 EIR did not analyze impacts with regard to tribal cultural resources.

Table 1-2
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	In the WECS 20 EIR	In This Supplemental EIR			New Impact or Increase in Severity of Impact?
	Level of Significance Before/After Mitigation (if applicable)	Level of Significance Before Mitigation	Mitigation Measure (if applicable)	Level of Significance After Mitigation	
Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Not previously analyzed	Less than significant	None required	Less than significant	N/A[3]
Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Not previously analyzed	Less than significant	None required	Less than significant	N/A[4]
Noise					
Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Less than significant	Less than significant	Although noise impacts resulting from implementation of the Project would be less than significant, MM-NOI-81 through MM-NOI-84 required in the WECS 20 FEIR shall still be applied to the Project in an effort to further minimize already less-than-significant impacts. ~~MM-NOI-80 In order to demonstrate that the Project will remain safely below the City CNEL criterion for WECS, acoustical analyses of the Project will be performed quarterly, commencing with construction and continuing until one year after completion, and reports of said analyses will be submitted to the City Planning Department. The applicant shall bear the cost of these analyses. Should any of these analyses indicate that noise levels are above allowed thresholds, steps shall be taken immediately to bring noise levels within acceptable thresholds.~~ MM-NOI-81 All construction activities, including the repair and maintenance of construction equipment on the Project site, shall comply with Section 9.04.030 ~~130.03~~ of the City of Desert Hot Springs Municipal Code. MM-NOI-82 Noise-generating construction equipment operated on the Project site shall be equipped with effective noise control devices (i.e., mufflers, lagging, and/or motor enclosures). MM-NOI-83 All equipment shall be properly maintained to ensure that no unnecessary noise, due to worn or improperly maintained parts, would be generated. MM-NOI-84 Truck deliveries and haul-offs shall only be permitted between the hours of 7:00 a.m. and 5:00 p.m. weekdays and 8:00 a.m. and 5:00 p.m. Saturdays. The haul routes shall be approved by the City Engineer.	Less than significant	No
Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	Potentially significant/Less than significant	Less than significant	None required	Less than significant	No
Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	Potentially significant/Less than significant	Less than significant	MM-NOI-83 and MM-NOI-84	Less than significant	No
Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	Potentially significant/Less than significant	Less than significant	MM-NOI-81 and MM-NOI-82	Less than significant	No

[3] Comparison is not applicable as the 2008 EIR did not analyze impacts with regard to greenhouse gas emissions.
[4] Comparison is not applicable as the 2008 EIR did not analyze impacts with regard to greenhouse gas emissions.

Table 1-2
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	In the WECS 20 EIR	In This Supplemental EIR			New Impact or Increase in Severity of Impact?
	Level of Significance Before/After Mitigation (if applicable)	Level of Significance Before Mitigation	Mitigation Measure (if applicable)	Level of Significance After Mitigation	
For a project located within an airport land use plan or, where such a plan has not been adopted, within two 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?	Less than significant	Less than significant	None required	Less than significant	No
For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	No impact	No impact	None required	No impact	No

CHAPTER 2
INTRODUCTION

2.1 PURPOSE AND SCOPE OF A SUPPLEMENTAL EIR

This Draft Supplemental Environmental Impact Report (SEIR) was prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental effects associated with implementation of the Desert Hot Springs Wind Energy Repowering Project (Project). It was prepared in accordance with Title 14, Section 15000 et seq. of the California Code of Regulations (CEQA Guidelines), and the rules, regulations, and procedures for implementing CEQA as adopted by the City of Desert Hot Springs (City), and supplements an Environmental Impact Report (EIR) certified by the City in 2008 for an earlier repowering project proposed by a different applicant at the same site. In accordance with CEQA Guidelines Section 15367, the City is the Lead Agency with principal responsibility to consider the Project for approval. Responsible agencies from whom approvals may also be required and that may use this Draft SEIR include the County of Riverside (County), California Department of Fish and Wildlife (CDFW), U.S. Army Corps of Engineers (USACE), and Regional Water Quality Control Board (RWQCB).

This Draft SEIR has been prepared in compliance with CEQA Guidelines Section 15163 guiding the preparation of a Supplement to an EIR. As defined in CEQA Guidelines Section 15163(b), "The supplement to an EIR need only contain the information necessary to make the previous EIR adequate for the project as revised." The Office of Planning and Research clarifies that a supplement is distinguished from a subsequent EIR in that it simply augments the previous EIR to the extent necessary to address the changed conditions described in CEQA Guidelines Section 15162 and examines mitigation and alternatives accordingly. It is intended to revise the previous EIR through supplementation. A subsequent EIR, in contrast, *is a complete EIR*, which focuses on the changed conditions.

According to Section 15163(a), the Lead Agency may choose to prepare a supplement to an EIR rather than a subsequent EIR if: (1) Any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and (2) Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation. The qualifying condition is found in Section 15162(a)(1): Substantial changes are proposed in the project which will require major [or minor for supplemental per Section 15163(a)(2)] revisions to the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

This Draft SEIR addresses the minor additions or changes necessary so that the Final EIR for the Project is adequate for the proposed Project modifications. It addresses increases in the severity of impacts associated with new components or operations that are not clearly (without analysis) minimal or are likely to affect impacts. The severity of impacts may increase while the level of

significance determination (no impact, less than significant, potentially significant) is not necessarily altered. The resource area topics to be analyzed in this Draft SEIR have been determined through preparation of a Section 15163 Study (Appendix A to this Draft SEIR) and the scoping process conducted by the City. As noted in the Notice of Preparation (NOP) (Appendix B to this Draft SEIR), this Draft SEIR addresses the following resource topics:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural and Tribal Cultural Resources
- Greenhouse Gas Emissions
- Noise

Because many aspects of the previous proposed Project and the current Project are consistent or similar, many of the impact conclusions presented in the prior Final EIR would not change. As a result, the City determined in the NOP for this Project that the resource areas listed below, which are analyzed and addressed in Appendix A, did not require further analysis. All applicable mitigation measures included in the Final EIR for these topics still apply to the current Project. Mitigation measures for the following resource areas are provided in Appendix A, Section 15163 Study, and in Appendix I, WECS 20 FEIR Mitigation Measures:

- Agriculture and Forestry Resources
- Energy
- Geology/Soils
- Hazards/Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning
- Mineral Resources
- Population/Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities/Service Systems
- Wildfire

This Draft SEIR fulfills the CEQA environmental review requirements for the proposed Conditional Use Permit (CUP No. 01-18), Variance (VAR No. 01-18), and waters/wetlands permits required by CDFW, USACE, and RWQCB. This Draft SEIR is an informational document intended for use by City decision makers, trustee and responsible agencies, and members of the general public in evaluating the physical environmental impacts of the Project.

2.2 RESPONSIBLE AND TRUSTEE AGENCIES

For this Project, the RWQCB is identified as a trustee agency that is responsible for the protection of water resources and water quality. The RWQCB is responsible for issuance of a National Pollutant Discharge Elimination System Permit to ensure that, during and after construction, on-site water flows do not result in siltation, other erosional actions, or degradation of surface or

subsurface water quality. The RWQCB and CDFW are also identified as responsible agencies for the Project, since they are responsible for issuance of approvals and permits related to temporary and permanent impacts to waters of the state.

2.3 PROJECT BACKGROUND AND PRIOR ENVIRONMENTAL REVIEW PROCESS

In 1985, the County of Riverside approved the Wind Energy Conversion System (WECS) 20 Wind Park project on the same Project site, which was proposed by Energy Unlimited, Inc. (EUI), for the development of 128 65-kilowatt (kW) wind turbines. This project was originally constructed with 65 wind turbines, with 8 additional turbines being added on site a few years later. The existing on-site facility is currently operating with 69 turbines, since four of the original turbines have since been decommissioned. The Project site, including the WECS 20 Wind Park facility, was annexed into the City in 1994.

The City received applications from EUI in 2000 to install eight new wind turbines within the existing WECS 20 Wind Park facility. The Conditional Use Permit and accompanying variances were approved by the City in January 2001. Construction of the eight turbines had not commenced by the time the permits expired two years after issuance. In 2003, EUI applied with the City to have the permits reapproved. In 2009, the City certified the Revised Commercial WECS 20 Permit Project Final EIR (WECS 20 FEIR) evaluating the potentially significant environmental impacts of the proposed eight-turbine project and approved the corresponding Conditional Use Permit and Variance applications.

The potentially significant environmental impacts identified in the WECS 20 FEIR were reduced to less than significant through the adoption of mitigation measures that would avoid or substantially reduce impacts. No significant and unavoidable impacts were identified to occur in the WECS 20 FEIR. As of this date, the Project described and analyzed in the WECS 20 FEIR has not been implemented.

2.4 PUBLIC SCOPING PROCESS

The scope of this Draft SEIR includes the potential environmental impacts identified in the NOP that was available for public review from August 20, 2018, through September 18, 2018; comments received during a public scoping meeting held on September 13, 2018, at Desert Hot Springs City Hall; and agency and public written comment received in response to the NOP. A summary of these written comment letters is provided in Table 2-1. The written comments and the NOP are included as Appendix B to this Draft SEIR.

Table 2-1
Summary of Comments Received on the NOP

Commenter	Date	Brief Summary of Environmental Issues Raised	EIR Chapter/Section Where Comment is Addressed
Federal Agencies			
U.S. Fish and Wildlife Service	September 18, 2018	Impacts to migratory birds and golden eagles (*Aquila chrysaetos*).	4.3, Biological Resources
State Agencies			
Native American Heritage Commission	August 31, 2018	AB 52 and SB 18 processes and the protection of cultural and tribal cultural resources.	4.4, Cultural and Tribal Cultural Resources
Regional and Local Agencies			
Riverside County Airport Land Use Commission (ALUC)	August 24, 2018	ALUC and Federal Aviation Administrative review of the Project.	Appendix A, Section 15163 Study
Coachella Valley Association of Governments (CVAG)	August 30, 2018	Conservation Area of the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) and Joint Project Review (JPR) process	4.3, Biological Resources
South Coast Air Quality Management District (SCAQMD)	September 11, 2018	Air quality and health risk assessment modeling, calculations, data, and analysis.	4.2, Air Quality
Native American Tribes			
Augustine Band of Cahuilla Indians	September 12, 2018	Protection of cultural and tribal cultural resources.	4.4, Cultural and Tribal Cultural Resources
Private Organizations and Members of the Public			
Sierra Club	September 17, 2018	Impacts to avian species	4.3, Biological Resources

2.5 ORGANIZATION OF THIS EIR

This Draft SEIR contains all of the information required to be included in an EIR, as specified by the CEQA Statutes and Guidelines (PRC Section 21000 et seq. and 14 CCR Chapter 5). CEQA requires that an EIR contain specified content. The following provides a quick reference in locating the CEQA-required sections within this document:

- **Chapter 1: Executive Summary.** The Executive Summary provides a summary of the Project and the Project Alternatives, including a summary of project and cumulative impacts, recommended mitigation measures, and the level of significance after mitigation for each environmental issue.
- **Chapter 2: Introduction.** The Introduction provides an overview of the Project and the CEQA process, and describes the purpose, scope, and components of this Draft SEIR.

- **Chapter 3: Project Description.** The Project Description provides a detailed description of the Project, including the location and project characteristics. The intended uses of this Draft SEIR, Project background, Project objectives, and required Project approvals, are also addressed.
- **Chapter 4: Environmental Analysis.** The Environmental Analysis chapter analyzes the environmental impacts of the Project. Impacts are organized into major environmental topic areas. Each topic area includes a description of the environmental setting, regulatory setting, significance criteria, individual and cumulative impacts, mitigation measures, and level of significance after mitigation. The following specific environmental areas are addressed in Chapter 4:
  - Section 4.1 – Aesthetics
  - Section 4.2 – Air Quality
  - Section 4.3 – Biological Resources
  - Section 4.4 – Cultural and Tribal Cultural Resources
  - Section 4.5 – Greenhouse Gas Emissions
  - Section 4.6 – Noise
- **Chapter 5: Other CEQA Considerations.** The Other CEQA Considerations chapter provides a summary of potential unavoidable, irreversible, and growth-inducing environmental impacts resulting from the Project.
- **Chapter 6: Alternatives to the Project.** The Alternatives to the Project chapter provides a comparison between the Project impacts and the Project Alternatives: (1) the No Project Alternative, (2) the Reduced Decommissioning Alternative, and (3) the Reduced Footprint Alternative.
- **Chapter 7: Persons and Organizations Consulted and List of Preparers.** The Persons and Organizations Consulted and List of Preparers chapter provides a list of the organizations and persons consulted, and various individuals who contributed to the preparation of this Draft SEIR. This section also includes a list of the Lead Agency personnel and technical consultants used to prepare this Draft SEIR.
- **Appendices.** The technical appendices contain the NOP (including public comments) and technical studies prepared to support the analyses and conclusions in this Draft SEIR.

The Final SEIR will be prepared after the public review period for this Draft SEIR has been completed. The Final SEIR will include comments and recommendations received on the Draft SEIR during the public review period; a list of persons, organizations, and public agencies commenting on the Draft SEIR; written responses to significant environmental issues identified in the comments received; and any other relevant information added by the City.

2.6 DOCUMENTS INCORPORATED BY REFERENCE

Pursuant to CEQA Guidelines Section 15150, this Draft SEIR has referenced several technical studies, analyses, and previously certified environmental documents. Information from these documents, incorporated by reference, is briefly summarized in the appropriate chapters and sections. The documents that were used to prepare this Draft SEIR include the following:

- Revised Commercial WECS 20 Permit Project Final EIR and Mitigation Monitoring and Reporting Program (2009)
- City of Desert Hot Springs General Plan (2000)
- Desert Hot Springs Municipal Code (2018 [Updated])

These reference documents, in accordance with CEQA Guidelines Section 15150(b), are available for review at the following location:

City of Desert Hot Springs, Community Development Department
65950 Pierson Boulevard
Desert Hot Springs, California 92240
760.329.6411

2.7 DOCUMENTS PREPARED FOR THE PROJECT

The following technical studies and analyses were prepared for the Project and Project site:

- Section 15163 Study, Appendix A
- Notice of Preparation, Appendix B
- Visual Resources Study, Appendix C
- Air Quality and Greenhouse Gas Emissions Analysis Technical Report, Appendix D
- Biological Resources Assessment and CVMSHCP Consistency Analysis, Appendix E-1
- Golden Eagle Survey Report, Appendix E-2
- Cultural Resources Inventory Report, Appendix F
- Update to Geotechnical Engineering Report, Appendix G
- Noise Impact Study, Appendix H
- WECS 20 FEIR Mitigation Measures Table, Appendix I

2.8 MITIGATION MONITORING AND REPORTING PROGRAM

Pursuant to CEQA Section 21081.6(a)(1) and CEQA Guidelines Section 15097, a Mitigation Monitoring and Reporting Program (MMRP) will be prepared to ensure that the mitigation measures identified in the Draft SEIR for the Project will be implemented. The City's Planning Commission will consider the MMRP in conjunction with the actions previously mentioned. The MMRP will include the following:

- The mitigation measures adopted by the Lead Agency, including those contained in the WECS 20 EIR
- The party or parties responsible for carrying out and implementing each mitigation measure
- The criteria to verify the implementation of each mitigation measure
- The documentation and reporting procedure for the MMRP

2.9 PUBLIC REVIEW OF THIS DRAFT SEIR

Upon completion of this Draft SEIR, the City prepared and filed a Notice of Completion with the Governor's Office of Planning and Research, State Clearinghouse to start the public review period (PRC Section 21161). Concurrent with the Notice of Completion, the City distributed a Notice of Availability in accordance with CEQA Guidelines Section 15087. The Notice of Availability was mailed to responsible and trustee agencies, organizations, and individuals who previously requested in writing to receive a copy. This Draft SEIR was distributed to responsible and trustee agencies, other affected agencies, surrounding cities and municipalities, and all interested parties requesting a copy of this document in accordance with PRC, Section 21092(b)(3). During the public review period, this Draft SEIR, including the appendices, is available for review at the following locations:

In Person:

City of Desert Hot Springs, Community Development Department
65950 Pierson Boulevard
Desert Hot Springs, California 92240
760.329.6411

City of Desert Hot Springs Public Library
11691 West Drive
Desert Hot Springs, California 92240

Online:

https://www.cityofdhs.org

Agencies, organizations, individuals, and all other interested parties not previously contacted, or who did not respond to the NOP, have the opportunity to comment on this Draft SEIR during the public review period. Written or email comments on this Draft SEIR should be addressed to:

Scott Taschner, Senior Planner
City of Desert Hot Springs, Community Development Department
65950 Pierson Boulevard
Desert Hot Springs, California 92240
760.329.6411, ext. 256
staschner@cityofdhs.org

Upon completion of the public review period, written responses to all substantive environmental comments will be prepared and made available prior to the public hearing on the Project before the City's Planning Commission, at which the Final SEIR will be considered for certification. The comments received and the responses to those comments will be included as part of the record for consideration for the Project.

CHAPTER 3
PROJECT DESCRIPTION

This chapter describes the objectives of the Desert Hot Springs Wind Energy Repowering Project (Project) and provides a detailed description of the Project characteristics. This chapter also discusses the requested development approvals and the necessary discretionary actions that are required for implementation of the Project.

3.1 PROJECT OVERVIEW

The Project involves the decommissioning of 69 existing wind turbines, the construction and operation of up to four new wind turbines generally located within and adjacent to existing footprints of the current wind turbines, and the future decommissioning of these four new wind turbines at the end of their useful life. The majority of the Project, including construction and operation of the new wind turbines, would occur on approximately 160 acres of privately owned lands located within jurisdictional boundaries of the City of Desert Hot Springs (City); off-site components of the Project—specifically a segment of the existing access road and a segment of the existing electrical interconnection—would be located within areas under the jurisdiction of the County of Riverside (County). These off-site components are existing and require no new disturbance; therefore, there would be no additional permits required from the County for either the access road or the electrical interconnection. In accordance with California Environmental Quality Act (CEQA) Guidelines Sections 15367, 15050, and 15051, the City is the Lead Agency with principal responsibility to consider the Project for approval.

The City is processing a Conditional Use Permit (CUP) and Variance to allow for development of the Project. The CUP is required to allow for operation of a commercial wind energy facility in the I-E (Industrial-Scale Energy Production) zone, and the Variance is requested to allow for design of the Project to deviate from select development standards, including height restrictions, set forth in the Desert Hot Spring Zoning Ordinance for the I-E zone.

3.2 PROJECT LOCATION

The approximately 160-acre Project site is bordered by undeveloped land to the north, south, and west, and Metropolitan Water District (MWD) Colorado River Aqueduct facilities to the east. Downtown Desert Hot Springs is located approximately six miles east of the Project site, and the Interstate (I) 10/State Route (SR) 62 interchange is located approximately 2.2 miles to the south. Primary access to the Project site would continue to be provided via an existing private access off Windhaven Road. The Project site consists of the Assessor's Parcel Number (APN) 667-160-001 (Figure 3-1).

3.3 ENVIRONMENTAL SETTING

The Project site is situated several hundred feet above the adjacent desert basin in a very windy area of the San Gorgonio Pass, which is one of the windiest regions in California. There are thousands of wind turbines of various sizes located throughout the San Gorgonio Pass. The San Gorgonio Pass connects the Coachella Valley to communities in the greater Los Angeles area to the west and is bordered on the southwest by the San Jacinto Mountains and on the north by the San Bernardino Mountains (City of Desert Hot Springs 2007).

Project Site

The Project site is located within the boundaries of the existing Wind Energy Conversion System (WECS) 20 Wind Park, which has been operating as a commercial wind energy facility for approximately 30 years. The Project site currently supports 69 existing wind turbines, along with associated electrical collection lines and unpaved access/maintenance roads (Figure 3-2). Portions of the existing access road, electrical collection lines, and electrical interconnection facilities occur on land owned by the MWD under the jurisdiction of the County. Desert Hot Springs Wind, LLC (Project Applicant) has obtained a Road License from the MWD that covers all off-site portions of the Project needed for site access and electrical interconnection. Since all off-site portions of the Project related to access and electrical interconnection are existing, there would be no new off-site disturbance. Any new disturbance would take place only on lands under the jurisdiction of the City.

The General Plan land use designation for the Project site is I-E (Industrial Energy-Related) (Figure 3-3) (City of Desert Hot Springs 2019). According to the City's Zoning Map, the Project site is zoned I-E (Industrial-Scale Energy Production) (Figure 3-4) (SCAG 2009).

Surrounding Land Uses

Land surrounding the Project site includes other commercial wind energy facilities, residential, industrial mining, open space, and water district facilities. Commercial wind energy facilities are located approximately 0.33 miles southwest and one mile southeast of the Project site on unincorporated County land. The area adjacent to the west of the Project site is designated OS/MR (Open Space/Mountain Reserve), even though an industrial mining site is located on this property. Below are descriptions of the land uses and zoning surrounding the Project site in each of the four cardinal directions:

- **North:** Undeveloped land. Immediately adjacent parcels to the north are zoned by the City as OS/MR.

- **East:** Colorado River Aqueduct, undeveloped land, scattered single-family homes, commercial wind energy facilities. Immediately adjacent parcels to the east are zoned by the City as OS/MR.
- **South:** Colorado River Aqueduct, undeveloped land, the unincorporated community of Painted Hills, commercial wind energy facilities. Immediately adjacent parcels to the south are zoned by the County as W-2 (Controlled Development Areas).
- **West:** Undeveloped land and commercial mining operations. Immediately adjacent parcels to the west are zoned by the City as OS/MR.

Cumulative Setting

For the analysis of cumulative impacts associated with the Project, a cumulative project list was developed through consultation with the City's Planning Division. Table 3-1 provides a summary of related development projects that have recently been completed, are currently being constructed, or are being planned within the City.

Table 3-1
Cumulative Projects Located in the City of Desert Hot Springs

Project	Land Use Type	Size/Quantity	Location	Status
Mission Creek Trails Project	Single-family residential, multi-family residential, commercial, and recreation	1,126 single-family residential units; 923 multi-family residential units; 481 acres of commercial, recreation, and homeowner's association lots; plus an additional 20.83 acres for commercial and 171 residential units	Northern edge of the City on the west side of SR-62	Under environmental review
CUP 02-15 and DA 06-15	Cannabis Cultivation	180,900 square feet	13310 Little Morongo Road	Construction
CUP 03-15 and DA 04-15	Cannabis Cultivation	1,001,000 square feet	16786 Little Morongo Road	Approved
CUP 04-15 and DA 02-15	Cannabis Cultivation	381,053 square feet	65000 Two Bunch Palms Trail	Construction
CUP 06-15 and DA 05-15	Cannabis Cultivation	23,250 square feet	65241 San Jacinto Lane	Operation
CUP 08-15 and DA 07-15	Cannabis Cultivation	1,800 square feet	13500 Little Morongo Road	Approved
CUP 09-15 and DA 07-15	Cannabis Cultivation	36,000 square feet	East side of Cabot Road, South of Two Bunch Palms Trail	Approved
CUP 10-15	Cannabis Cultivation	40,000 square feet	65242 San Jacinto Lane	Operation

Table 3-1
Cumulative Projects Located in the City of Desert Hot Springs

Project	Land Use Type	Size/Quantity	Location	Status
CUP 01-16 and DA 01-16	Cannabis Cultivation	36,000 square feet	East side of Cabot Road, south of Two Bunch Palms Trail	Approved
CUP 02-16	Cannabis Cultivation	9,600 square feet	65321 Two Bunch Palms Trail	Operation
CUP 03-16	Cannabis Cultivation	5,038 square feet	65441 Two Bunch Palms Trail	Operation
CUP 04-16 and DA 02-16	Cannabis Cultivation	41,000 square feet	65311 San Jacinto Lane	Construction-Temporary Use Permit
CUP 05-16 and DA- 08-16	Cannabis Cultivation	45,360 square feet	APN 665-030-051 Two Bunch Palms Trail	Approved
CUP 06-16	Cannabis Cultivation	45,360 square feet	APN 665-030-052 Two Bunch Palms Trail	Approved
CUP 07-16	Cannabis Cultivation	23,070 square feet	65118 San Jacinto Lane	Construction
CUP 08-16	Cannabis Cultivation	4,912 square feet	65265 San Jacinto Lane	Operation
CUP 09-16 and DA 03-16	Cannabis Cultivation	102,125 square feet	APN 665-190-017 Little Morongo Road between Dillon Road and 18th Street	Approved
CUP 10-16	Cannabis Cultivation	62,994 square feet	APN 663-280-002 Little Morongo Road and Two Bunch Palms Trail	Approved
CUP 11-16 and DA 04-16	Cannabis Cultivation	30,550 square feet	APN 665-030-062 Two Bunch Palms Trail between Cabot Road and Little Morongo Road	Operation
CUP 12-16 and DA- 06-16	Cannabis Cultivation	312,324 square feet	APN 665-080-004 Little Morongo Road between Two Bunch Palms Trail and Dillon Road	Construction
CUP 13-16	Cannabis Cultivation	6,600 square feet	APN 665-030-060 Two Bunch Palms Trail between Little Morongo Road and Cabot Road	Construction
CUP 14-16	Cannabis Cultivation	45,000 square feet	13300 Little Morongo Road	Construction
CUP 15-16	Cannabis Cultivation	9,864 square feet	14250 Little Morongo Road	Construction
CUP 16-16 and DA 11-16	Cannabis Cultivation	50,208 square feet	APN 663-280-003 east of Little Morongo Road, north of Two Bunch Palms Trail	Approved
CUP 17-16 and DA 12-16	Cannabis Cultivation	50,208 square feet	APN 663-280-004 east of Little Morongo Road, North of Two Bunch Palms Trail	Approved
CUP 18-16	Cannabis Cultivation	36,000 square feet	APN 665-030-026 east side of Cabot Road, south of Two Bunch Palms Trail	Approved

Table 3-1
Cumulative Projects Located in the City of Desert Hot Springs

Project	Land Use Type	Size/Quantity	Location	Status
CUP 19-16	Cannabis Cultivation	36,000 square feet	APN 665-030-038 east side of Cabot Road, south of Two Bunch Palms Trail	Approved
CUP 20-16 and DA	Cannabis Cultivation	224,435 square feet	APN 666-310-009 west of Little Morongo Road and south of Dillon Road	Approved
CUP 23-16 and DA 15-16	Cannabis Cultivation	57,907 square feet	65401 Two Bunch Palms Trail	Construction
CUP 25-16	Cannabis Cultivation	29,193 square feet	14650 Little Morongo Road	Approved
CUP 26-16 and DA 17-16	Cannabis Cultivation	50,210 square feet	APN 665-060-006 northwest corner of Cabot Road and Palomar Lane	Approved
CUP 27-16	Cannabis Cultivation	36,218 square feet	APN 665-030-036	Approved
CUP 28-16	Cannabis Cultivation	16,288 square feet	APN 665-040-015	Approved
CUP 29-16	Cannabis Cultivation	69,000 square feet	APN 665-040-001	Approved
CUP 30-16	Cannabis Cultivation	12,000 square feet	APN 665-030-055	Approved
CUP 01-17	Cannabis Cultivation	20,664 square feet	APN 665-070-004	Approved
CUP 02-17	Cannabis Cultivation	621,920 square feet	64125 19th Avenue	Construction
CUP 03-17	Cannabis Cultivation	22,000 square feet	65128 Palomar Lane	Approved
CUP 05-17	Cannabis Cultivation	35,320 square feet	APN 665-040-010	Approved
CUP 06-17	Cannabis Cultivation	86,700 square feet	APNs 665-030-018 and 665-030-019	Approved
CUP 07-17 and DA 05-17	Cannabis Cultivation	63,446 square feet	APNs 665-050-001, 665-050-002, 665-050-003, 665-050-004	Approved
CUP 08-17 and DA 06-17	Cannabis Cultivation	50,976 square feet	APNs 665-040-018, 665-040-019, 665-040-022	Approved
CUP 09-17 and DA 07-17	Cannabis Cultivation	8,389 square feet	APN 665-040-022	Approved
CUP 11-17 and DA 09-17	Cannabis Cultivation	35,435 square feet	San Gorgonio Lane between Little Morongo Road and Cabot Road	Approved
CUP 12-17 and DA 10-17	Cannabis Cultivation	298,576 square feet	APN 665-110-006	Approved
CUP 13-17 and DA 11-17	Cannabis Cultivation	68,400 square feet	APNs 665-030-039 and 665-030-040	Approved
CUP 14-17 and DA 12-17	Cannabis Cultivation	104,429 square feet	APN 666-310-001	Approved
CUP 15-17	Cannabis Cultivation	212,000 square feet	13640 Little Morongo Road	Approved
CUP 16-17	Cannabis Cultivation	123,000 square feet	APN 665-030-048	Approved
CUP 17-17and DA 07-16	Cannabis Cultivation	2,800,000 square feet	18550 Indian Canyon Drive	Construction

Table 3-1
Cumulative Projects Located in the City of Desert Hot Springs

Project	Land Use Type	Size/Quantity	Location	Status
CUP 21-17	Cannabis Cultivation	64,000 square feet	APNs 665-070-001, 665-050-011, 665-050-012, 665-050-013	Construction
CUP 24-17	Cannabis Cultivation	42,390 square feet	APN 665-040-011	Approved
CUP 25-17	Cannabis Cultivation	137,030 square feet	APN 665-080-012	Approved
CUP 27-17	Cannabis Cultivation	39,900 square feet	APN 665-070-011	Approved
CUP 28-17	Cannabis Cultivation	2,152,583 square feet	APN 666-370-019	Approved
TTM 37185 and SP	Cannabis Cultivation	1,897,799 square feet	APNs 669-150-001, 669-150-002 west of Varner Road and Palm Drive	Approved
CUP 30-17	Cannabis Cultivation	7,400 square feet	65090 San Jacinto Lane	Approved
CUP 31-17	Cannabis Cultivation	54,886 square feet	APN 665-050-018	Approved
CUP 32-17	Cannabis Cultivation	2,720,640 square feet	APNs 666-370-010, 666-370-011	Approved
CUP 33-17	Cannabis Cultivation	16,671 square feet	APN 665-030-061	Approved
CUP 34-17	Cannabis Cultivation	1,400 square feet	14350 Little Morongo Road	Approved
CUP 35-17	Cannabis Cultivation	32,650 square feet	APN 665-030-020	Approved
CUP 36-17	Cannabis Cultivation	22,176 square feet	APN 665-050-019	Approved
CUP 37-17	Cannabis Cultivation	15,542 square feet	APN 665-040-016	Approved
CUP 38-17	Cannabis Cultivation	33,200 square feet	APN 665-030-025, east side of Cabot Road between San Jacinto Lane/Two Bunch Palms Trail	Approved

Notes: CUP = Conditional Use Permit; DA = Development Agreement; SR = State Route; APN = Assessor's Parcel Number

Where appropriate throughout this document, the potential cumulative impacts associated with the addition of the proposed Project when considered with the existing commercial wind energy facilities located south, southeast, and southwest of the Project site, such as cumulative aesthetic or noise impacts, have also been addressed. According to the U.S. Geological Survey's U.S. Wind Turbine Database, nearly 3,000 individual wind turbines are listed as operational throughout the Coachella Valley region (USGS 2018).

3.4 PROJECT DESCRIPTION

3.4.1 Decommissioning of Existing Wind Turbines

The decommissioning stage of the Project would consist of dismantling and removing the existing wind turbine generators; removing turbine access roads not required for the Project; and removing the existing overhead collection line and poles, if underground collection lines are to be installed, as described in Section 3.4.2. There are currently 69 turbines on the site measuring approximately 100 feet in height and 40 feet in diameter, and located on three ridgelines on the eastern half of the project site. These turbines are accessed by existing unpaved private roadways used by maintenance personnel.

The decommissioning process for the Project would be expected to follow these steps:

- The contractor would mobilize staff and equipment to perform the work, including setting up a field office, hiring personnel, and arranging for utilities, along with other general decommissioning requirements.
- Construction permits would be obtained, and a stormwater pollution prevention plan; a spill prevention control and countermeasure plan; and other documents as required by the City, County, and Regional Water Quality Control Board regulations would be submitted prior to the start of decommissioning field operations. These documents would include a Project health and safety plan, revegetation plan, site reclamation and monitoring plan, construction notification plan, noxious weed and invasive species control plan, dust control plan, and traffic control plan for the decommissioning phase of the Project.
- Cranes and other construction equipment sufficient to dismantle and remove the existing wind turbine generators would be mobilized to the site.
- Gearboxes, transformers, and hydraulic systems would be drained of fluids, which would be put into appropriate containers and would be transported and disposed of in accordance with all state and federal environmental regulations.
- The contractor would dismantle and remove the rotor, nacelle, towers, and transformers, and transport the entire wind turbine generator off site. It is anticipated that the towers and nacelle would be reduced to manageable-sized pieces at the on-site temporary laydown yard to facilitate movement off site to recycling facilities. Blades would be cut up into manageable and appropriately sized pieces to be hauled to an appropriate recycling facility or to an approved disposal site. If the resale market for used wind turbines and components is viable, some of the turbines and components, such as blades, may be transported off site intact for resale.
- All underground cables would be de-energized and abandoned in place.

- An on-site temporary laydown yard would be established for the decommissioning and construction phases of the Project.
- The Project site would be inspected for any remaining debris, which would then be removed and properly disposed of off site.

3.4.2 Project Components

The Project would produce up to approximately 17 megawatts (MW) of wind energy and would consist of up to four new wind turbines with a range of approximately 2.0 MW to 4.2 MW in nameplate capacity per turbine. In addition to the new wind turbines, the Project includes the following primary components, which are described in detail in the following sub-sections:

- Decommissioning of approximately 69 existing wind turbines and the appropriate ancillary equipment.
- Construction of new underground collection lines starting at the southernmost new turbine, heading north, connecting to each of the other three new turbines. From this point, the collection would either continue underground in the center of the existing access road to the off-site substation (located on APN 516030014) or it would connect to the existing overhead 12-kilovolt (kV) collection line system on site that continues to the off-site substation (located on APN 516030014).
- Construction of temporary and permanent access roads between turbines, as well as improvements to existing private roadways to accommodate construction and delivery of equipment.
- Construction of a temporary on-site laydown and parking area.
- Installation of one new temporary and one new permanent meteorological tower, each up to approximately 309 feet tall.
- Decommissioning of the new wind turbines at the end of their useful life.

A site plan showing the primary components of the Project is provided as Figure 3-5.

3.4.2.1 Proposed Wind Turbines

Since wind turbine technology is continually improving, and the cost and availability of specific types of turbines vary from year to year, the final specifications are not available; however, representative turbines for the Project are described as follows:

- Four wind turbines, ranging from 2.0 MW to 4.2 MW in nameplate capacity per turbine
- Tubular steel towers

- Rotor diameter – maximum of 427 feet (approximately 213-foot blades)
- Base – approximately 18 feet
- Hub height – maximum of 309 feet
- Total height of turbine (highest point) – maximum of 493 feet

The dimensions above represent the maximum expected to be installed for the Project. Technical/physical specifications for the proposed turbines have been provided, ensuring that they reflect the most conservative estimate of proposed turbine-related impacts. All proposed turbines would be three-bladed, upwind, horizontal-axis wind turbines. Each turbine would be mounted on a concrete pedestal measuring 20 feet in diameter, supported by a permanent concrete foundation. Foundations would reach a depth of approximately 15 feet below existing ground surface. Each turbine would have a turbine rotor and nacelle mounted on top of its tubular tower. A graphic depiction showing the profile and dimensions of a wind turbine that may be installed on site is provided as Figure 3-6.

The turbines would be connected to the existing, off-site collector substation through an electrical collection system. Turbines would be arranged within the Project site in accordance with applicable industry siting recommendations for optimum energy production while accounting for site constraints. In this case, the turbines would occur within the eastern half of the property, on the most western of three ridges (see Figure 3-5).

Consistent with Federal Aviation Administration (FAA) rules established in Advisory Circular 70/7460-1L: Obstruction Marking and Lighting, all turbine components (including towers, nacelles, and rotors) would be painted or finished using low-reflectivity, neutral white colors. Exterior lighting installed on turbines would be restricted and would only include FAA aviation warning lights.

Turbine towers would be a tapered tubular steel structure manufactured in three to five sections depending on the tower height, and approximately 18 feet in diameter at the base. An internal service platform at the top of each section would allow for access to the tower's connecting bolts for routine inspection. A ladder is located within the inside of the structure to provide access to the nacelle for turbine maintenance.

The nacelle is the component of the wind turbine that houses the main mechanical components, which consist of the drive train, gearbox, and generator. The nacelle would be equipped with an anemometer and a wind vane that communicates wind speed and direction information to an electronic controller. An electric motor rotates the nacelle and rotor to keep the turbine pointed into the wind to maximize energy capture. An enclosed, steel-reinforced fiberglass shell houses the nacelle to protect internal machinery from the elements.

The hub secures the blades to the rotor shaft and is usually made from a large iron casting. The hub is located on the front side of the nacelle and is covered by a composite nose-cone structure to streamline airflow and protect the equipment. The hub also contains the mechanisms that allow the blades to pitch in response to wind, temperature, and air density conditions.

The wind turbines would have a three-blade rotor. The diameter of the circle swept by the blades (rotor swept zone) would be no more than 427 feet. The wind turbines' control system includes provisions to safely stop the rotor by pitching the blades to a stall position under all foreseeable upset conditions. The turbines also would be equipped with a parking brake to keep the rotor stationary while maintenance or inspection is performed.

Each turbine installed on the Project site would be equipped with a control system to monitor variables consisting of wind speed and direction, air and machine temperatures, electrical voltages, currents, vibrations, blade pitch, and yaw (side-to-side) angles. In addition to monitoring, the up-tower control system would control nacelle and power operations. Nacelle functions include yawing the nacelle into the wind and pitching the blades to either capture wind energy to make the rotor turn or stall the blades to stop the rotor when necessary. Power operations controlled at the bus cabinet inside the base of the towers include operation of the main breakers to engage the generator with the grid and control of ancillary breakers and systems. The control system would always be in operation to ensure that the machines operate efficiently and safely.

Each wind turbine control system would be interconnected through new fiber-optic links that would be installed within existing access roads to a Supervisory Control and Data Acquisition (SCADA) system to remotely manage, diagnose, and coordinate operation of the complete wind farm. The SCADA system servers would be located at an existing off-site operations and maintenance (O&M) building, and would also be web-linked to remote locations, such as the wind turbine manufacturer's facilities for supervisory and maintenance purposes. The SCADA system would also provide data to the California Independent System Operator (CAISO) through a third-party telecommunications provider.

A step-up transformer would be used at each wind turbine to boost voltage to the appropriate medium voltage to deliver power within the Project site. This boost is necessary because the low-voltage power generated by the wind turbine (600 volts to 1,000 volts) is not suitable for distribution within the Project, since it would require larger underground electrical collection cables and generate higher power losses. The transformer may either be contained within the wind turbine unit itself or may be pad-mounted next to the base of each wind turbine. Electrical cables in an underground electrical collection system would transmit electricity from the transformer to the off-site existing collector substation, where the collector substation main power transformers would boost the medium voltage to high voltage to deliver power to the point of interconnection located at the Southern California Edison (SCE) Devers Substation 115 kV switchrack, and for ultimate distribution to the customer base.

Each turbine would be installed in an area designated as the turbine pad, which would include the subterranean 60- to 70-foot-diameter steel-reinforced concrete turbine foundation, and a crane pad to provide the appropriate working surface and strength for safe operation of the high-capacity crawler crane required to erect each turbine. Each turbine pad would require an approximately 2.5- to 3.5-acre temporary construction area, including a 60-foot by 100-foot crane pad. Crane pads would be maintained for the life of the Project to provide for the operation of equipment that may be needed for future O&M activities.

The proposed wind turbines would include built-in safety measures to comply with Occupational Safety and Health Administration (OSHA) and American National Standards Institute (ANSI) requirements. In addition, each wind turbine would be equipped with a lightning rod atop the nacelle. Sensitive parts in the nacelle, such as the anemometer, wind vane, and the controller, are protected from lightning by an upgraded shielded protection system. Each of the blades would have lightning shielding to protect the blades from damage caused by lightning. The wind turbine–mounted protection would be tied to a bare copper grounding cable installed around the foundation for lightning and electrical protection. A fire detection system within each wind turbine would interface with the SCADA system.

3.4.2.2 Electrical Collection System

There are two options under consideration for the Project's electrical system:

Option 1: The Project's electrical system would consist of new, underground 12 kV collector circuits that would connect from turbine to turbine and would tie directly into the existing overhead 12 kV collection system originating from inside the Project boundary. This existing on-site 12 kV overhead collection system, which is currently used by the existing wind turbines to be decommissioned, is connected to an existing off-site substation located on APN 516030014.

Option 2: The Project's electrical system would consist of new, underground 12 kV or 34.5 kV collector circuits ultimately connecting the new turbines to an off-site substation. Each new 12 kV or 34.5 kV collection circuit would consist of three cables comprised of stranded aluminum conductors, cross-linked polyethylene insulation, and a copper concentric shield neutral ground wire in black polyethylene jacket. These cables would be sized according to their designed electrical loads. Underground circuits would be directly buried within a trench with at least four feet of cover. Fiber-optic cables for wind turbine generator management and control would be installed within these same collection trenches to the extent possible as would bare copper or copper-clad neutral ground wire. These trenches would be located within existing Project access roads. Vaults and splice boxes would be placed in these trenches within existing access roads.

3.4.2.3 Supervisory Control and Data Acquisition System

The SCADA system would be installed at the Project to collect operating and performance data from each turbine and to enable remote operation of the wind turbines. The wind turbines would be linked to a central computer located in a nearby, off-site existing operations center by a fiber-optic network. The SCADA system's fiber-optic cables would be co-located with the Project's collection circuits within existing access roads. The SCADA system would be capable of sending signals to a cellphone, tablet, computer, or other personal communication device to alert operations staff of any operational issues. The SCADA system would also be connected to CAISO and SCE. Personnel located at an existing off-site O&M facility in North Palm Springs would monitor the wind turbines with the SCADA system.

3.4.2.4 Meteorological Towers

The Project would include installation of one new permanent and one new temporary meteorological tower, each up to approximately 309 feet tall. Each would be equipped with applicable FAA-compliant marking or lighting for aviation safety.

The permanent meteorological tower would consist of a free-standing, lattice structure atop an approximately 28-foot by 28-foot square, subterranean concrete foundation approximately 15 feet deep, and would be equipped with meteorological instruments such as anemometers to monitor and document site-specific wind conditions in order to maximize the operating efficiency of the Project.

The temporary meteorological tower would consist of a guyed-lattice tower constructed atop an approximately six-foot by six-foot square, subterranean temporary concrete foundation. It would be installed at one of the four turbine sites after the site has been graded but prior to the erection of the wind turbine. This meteorological tower would be used to obtain wind data for site calibration related to the power curve testing process for the wind turbines prior to their commercial operations. Although this meteorological tower would require FAA obstruction lighting, it would only be installed for approximately six months and would be dismantled and removed prior to turbine erection.

3.4.2.5 Access Roads

The existing network of permanent access roads would be retained and reused for the new wind turbines. In addition to the existing roads, permanent access and maintenance roads would be constructed to provide access and circulation within the Project. These access roads would consist of approximately 16-foot-wide permanent roads to provide access to each wind turbine and ancillary equipment. These same permanent access roads would be used during construction, although the width of these roads may be temporarily increased to up to approximately 36 feet wide to accommodate cranes and larger construction equipment.

Access roads would consist of compacted native material but may also require approximately four to six inches of aggregate and/or geosynthetic material to provide the soil strength needed for construction. The disturbed areas outside the final roadway width would be graded and compacted for use during construction and then de-compacted, stabilized, and restored to their current condition at the conclusion of construction. A new permanent access road layout that would span the length of the new turbine string would incorporate applicable federal, state, and local standards regarding internal road design and circulation, particularly those provisions related to emergency vehicle access.

Primary access to the Project site is, and would continue to be provided from SR-62 with local access from Seely Road, 16th Avenue, Windhaven Road, and Painted Hill Road. Consistent with mitigation measure (MM) 86 from the WECS 20 Permit Project Final Environmental Impact Report (WECS 20 FEIR), prior to start of construction, a traffic control plan would be prepared to address transportation activities, such as the delivery of turbine components, main assembly cranes, and other large pieces of equipment, to reduce impacts to off-site traffic flow. The traffic control plan would also identify the requirements for road design, construction, and O&M.

3.4.2.6 Safety

The wind turbines would be equipped with an FAA-compliant lightning rod atop the nacelle. The anemometer, wind vane, other sensitive parts in the nacelle, and the controller are protected from lightning strikes by an upgraded shielded protection system. Each of the blades would also have shielding to protect the blades from damage caused by lightning. The turbine-mounted protection would be tied to a bare copper grounding cable installed around the foundation for lightning and electrical protection.

The turbine system would be equipped with arc flash detection sensors, optical technology to detect the presence of the initial arc flash, over-current limiting devices, and either thermal circuit breakers or traditional fuses.

Installation of the wind turbines would be required to comply with FAA Advisory Circular 70/7460-1L Change 1, Obstruction Lighting/Marking requirements. The Project Applicant would file Form 7460-1, Notification of Proposed Construction or Alteration, with the FAA prior to constructing the wind turbines. To ensure safety to both air traffic and O&M personnel on the ground, the FAA would determine the appropriate lighting required for the wind turbines and the appropriate exterior finish for the turbines and towers for daylight marking.

During the construction phase, access roads would have gates or signs installed at points of ingresses for safety reasons, as necessary, to control public access to the Project site.

3.4.2.7 Security

All turbine tower access doors would be locked to limit public access, with no fencing.

3.4.3 Project Construction

Construction of the Project is anticipated to last approximately 13 months. The Project construction would involve the following tasks:

- Existing turbine decommissioning (first phase).
- Overall clearing, grubbing, and grading of the Project site.
- Construction of access roads, parking, and temporary equipment staging area.
- Implementation of dust and erosion control measures.
- Excavation for turbine foundations.
- Preparation of crane pads for erection of the turbines.
- Erection of the permanent and temporary meteorological towers.
- Construction of foundations for the wind turbines, including backfill and installation of crane pads.
- Removal of the temporary meteorological tower.
- Transportation of turbine components to the Project site.
- Erection of wind turbines, including towers, nacelles, and rotors.
- Installation of electrical collection and SCADA systems.
- Commissioning and testing the wind turbines.
- Completing final road grading and decommissioning, final erosion control, restoration, re-vegetation, and site cleanup.
- Existing turbine decommissioning (second phase).

The various types of construction equipment and vehicle trips used for estimating the Project-generated construction emissions are shown in Table 4.2-6.

3.4.3.1 Clearing and Grading

Clearing and grading for the Project site, including access roads and the approximately two-acre temporary laydown and parking area, would result in approximately 117,000 cubic yards of cut and 117,000 cubic yards of fill, and any actual net volume remaining would be redistributed throughout the Project site. The amount of clearing and grading at each turbine site would depend on topography, but is anticipated to cover approximately 2.5 acres to 3.5 acres. Similarly, the amount of clearing and grading at the permanent meteorological tower site would depend on topography, but is anticipated to cover approximately 0.2 acres. Each graded site would include

enough area to account for the wind turbine or meteorological tower foundation and for an approximately 60-foot by 100-foot, temporary crane pad area. These crane pad areas would be used for the crane pad, equipment laydown, and other construction-related needs. The crane pad is required for supporting the large tower erection crane and would consist of a compacted native soil or compacted aggregate base gravel area. The topsoil from the crane pads, if any, would be used at adjacent locations during restoration activities. Upon completion of construction, gravel with a minimum approximately 12-foot width would be placed around each approximately 18-foot-diameter reinforced concrete turbine pedestal to provide truck access. The balance of the cleared area would be revegetated.

To support the construction crane for turbine or meteorological tower erection, a compacted-soil crane pad with a maximum slope of 1% would be required. The construction crane pad would not have an asphalt surface, and underlying soils would be compacted to provide a soil-bearing capacity designed to provide a stable foundation for the crane. Construction of the Project would rely on existing roads.

3.4.3.2 Foundation Construction and Tower Erection

Permanent turbine and meteorological tower foundations would be buried underground and would include scour protection provisions as necessary. Exact dimensions for the turbine foundations would depend on geotechnical survey results, site-specific needs, and the selected wind turbine model. After turbine erection has been completed, with the exception of the approximately 20-foot-diameter foundation pedestal and the turbine access road, the cleared area would be revegetated.

The turbine foundation design would be based on site-specific geotechnical investigations; prior to confirming the final turbine locations, soil borings would be collected for each turbine site to ensure sufficient soil bearing capacity necessary to provide a stable foundation for the crane. During the construction phase, a licensed geotechnical engineer would then analyze and recommend specific construction techniques for foundational strength at each turbine. Reinforced concrete foundations would be placed for the turbines according to the manufacturer's and geotechnical engineer's recommendations.

3.4.3.3 Temporary Meteorological Tower Foundation Construction and Tower Erection

Temporary meteorological towers would be installed by crane at specified turbine locations that would have already been graded and prepared for turbine construction. Therefore, no incremental site preparation work would be required. These towers would require much smaller concrete foundations than the permanent meteorological towers since they would be supported by guy wires. After approximately six months of collecting sufficient, site-specific wind data, these towers would be removed.

3.4.3.4 Electrical Collection System

The Project's complete electrical collector system would consist of a network of circuits that would collect and deliver electricity from each of the wind turbines to an existing substation located outside the Project boundary to the south–southwest. An existing 12 kV overhead collection system within the Project boundary is currently in use by the existing wind energy facility that would be decommissioned. In the event that the Project elected to use this existing system (Option 1), the only underground collection that would be installed would include the collection exiting from each new wind turbine and terminating at the northernmost pole structure in the Project site. The collection would exit the ground at this pole and connect to the existing overhead system to deliver electricity into the off-site substation

Alternatively, the Project could install a completely underground electrical collection system to deliver electricity into the off-site substation (Option 2). The installation of underground electrical collection would be within the existing access roads. All underground collection would be placed within a 48-inch-deep and 12-inch-wide cable trench. The topsoil in the trench would be removed and set aside. During backfill, the topsoil would be replaced as the uppermost layer.

3.4.3.5 Temporary Laydown and Parking

An approximately two-acre temporary laydown and staging area would be used for construction parking and as a temporary laydown yard to stage and store wind turbine components, construction equipment, and construction materials. Steel construction containers would be used to securely store specialized equipment. This area would be located strategically within the Project site to optimize construction activities while also minimizing off-site visual impacts. After construction, all temporary disturbances and construction containers associated with the temporary laydown and parking area would be removed, and these areas would be restored to their current condition.

3.4.3.6 Construction Communication and Contacts

The Project Applicant would develop a construction communication plan for review and approval by the Desert Hot Springs Police and Fire Departments. A list of emergency telephone numbers would be distributed to staff, and all emergencies would be immediately reported to the Project Applicant's on-site construction representative. Contact information for lead construction personnel would be provided to respective agencies. In addition, construction crews and inspectors would be equipped with radios and cellular telephones to communicate in the event of an emergency. Any radio units used during construction would comply with Federal Communications Commission's rules and regulations. The Project would comply with, and Project contractors would adhere to, the emergency response procedures in the Project Applicant's construction communication plan.

3.4.3.7 Work Force

The Project may require up to 35 employees per day during the peak construction period. On average, 25 employees would be present at the Project site daily, and up to 28 daily truck deliveries are estimated during peak construction; however, truck deliveries would vary depending on the specific stage of construction. Construction activities would occur six days per week during the City's allowable hours of operation (i.e., 7:00 a.m. to 7:00 p.m.). Generally, all employees would arrive within the morning peak hour and depart within the evening peak hour, and delivery truck trips would be distributed evenly between the hours of 7:00 a.m. and 5:00 p.m. during weekdays and between the hours of 8:00 a.m. and 5:00 p.m. on Saturdays.

3.4.3.8 Construction Vehicle Access

The primary regional construction access and haul route into the Project site would be from SR-62, with local access from Seely Road, 16th Avenue, Windhaven Road, and Painted Hill Road. Consistent with MM 86 from the WECS 20 FEIR, prior to start of construction, a traffic control plan would be prepared to address transportation activities, such as the delivery of turbine components, main assembly cranes, and other large pieces of equipment, to reduce impacts to off-site traffic flow. The traffic control plan would also identify the requirements for road design, construction, and O&M.

Construction contractors would post signs on public roads, alerting the public of increased heavy construction traffic. When possible, delivery times would be planned around local peak travel periods to avoid congestion. Other than access to the Project site on public roads, no work would be performed in the public rights-of-way.

3.4.3.9 Flagging/Staking of Project Site

Environmentally sensitive areas would be staked, flagged, or fenced to display boundaries, so that sensitive ecological and archaeological resources would be avoided (see Sections 4.3 and 4.4 for discussions regarding biological and cultural resources). Consistent with MM 27 from the WECS 20 FEIR, the Project Applicant would provide training to construction personnel in regards to these environmentally sensitive areas and avoidance measures, and on the importance of identified exclusion areas to be avoided.

3.4.3.10 Water Use

Water would be required during the construction phase of the Project. Water would be used for road construction and compaction, turbine foundations, dust suppression, and for fire protection. A breakdown of water usage for Project construction is as follows:

1. ***Road Construction*** – Assuming on-site sand materials with extremely low in-situ moisture contents, 110 pounds per cubic foot, and 10% optimum moisture content, it is estimated that a total of approximately 1,500,000 gallons of water are needed for access road compaction efforts.
2. ***Turbine Foundation Concrete Mixing*** – Zero gallons of water would be applied on site, as concrete would be provide by an off-site, ready-mix plant.
3. ***Dust Suppression During Construction*** – A maximum of eight water trucks per day (16,000 gallons) are anticipated. Assuming a 45-day duration where dust suppression is required regularly, it is estimated that a total of approximately 720,000 gallons would be used during construction.

3.4.3.11 Concrete Quantities

Sand, aggregate, and cement would be sourced from existing local and permitted quarries. Cement obtained from off-site vendors would be delivered by truck. Approximate quantities for raw materials necessary for each proposed turbine would include approximately 592 cubic yards of concrete for each foundation, and a total of approximately 2,500 cubic yards for the entire construction phase.

3.4.3.12 Construction Waste and Hazardous Materials

Construction wastes would consist primarily of concrete waste from turbine pad demolition and construction, wood waste from wood forms used for concrete pad construction, and scrap metal steel from turbine tower construction. Additional wastes could include erosion control materials, such as straw bales and silt fencing, and packaging materials from associated turbine parts and other electrical equipment. Construction wastewater would be generated from concrete trucks after concrete loads have been emptied. The construction contractor would be responsible for conducting wash-down activities at the on-site laydown yard as required. Appropriate erosion control and stormwater best management practices (BMPs) would be installed at this location to contain wash-down water to the laydown area. Portable toilets would be provided for on-site sewage handling during construction and would be pumped and cleaned regularly by the construction contractor. No other wastewater would be generated during construction.

Construction waste would be minimized by estimating materials needs in advance and through efficient construction practices. Construction wastes would be recycled when feasible. Steel scrap would be collected and transported to a recycling facility. Wood waste would also be recycled where feasible, depending on size and quantity of scrap and leftover materials. Concrete waste may be used as on-site fill; however, if there is no reuse option available for concrete waste, it would be removed to a nearby landfill. Packaging waste (such as paper and cardboard) would be separated and recycled. Any non-recyclable wastes would be collected and transported to a local landfill.

Industrial waste would be generated in the construction phase and include paints and solvents associated with the assembly of the turbines and towers. The Project does not include the demolition of any existing building that may contain asbestos or lead-based paint. No hazardous materials (40 Code of Federal Regulations 355) are anticipated to be produced, used, stored, or disposed of as a result of construction, operation, or decommissioning of the facilities.

In the unlikely event that hazardous materials are encountered on site during Project construction, a hazardous materials management plan or similar document required by the fire department or County Department of Environmental Health regulations would be prepared that addresses storage, use, transportation, and disposal of each hazardous material encountered at the site. This plan would also identify requirements for notices to federal and local emergency response authorities, and would include emergency response plans.

A spill prevention, control and countermeasure plan would be prepared that identifies where construction equipment fuels and wastes would be stored on site, spill prevention measures to be implemented, training requirements, appropriate spill response actions for each material or waste, the locations of spill response kits on site, a procedure for ensuring that the spill response kits are adequately stocked at all times, and procedures for making timely notifications to authorities.

3.4.3.13 Soil Stabilization

To minimize erosion during and after construction, BMPs for erosion, sediment, and stormwater control would be used. The appropriate mix of BMPs would be approved by the City in a water quality management plan; these measures may include installation of silt fences, straw wattles, mulch, and/or gravel bags.

3.4.3.14 Construction Training and Monitoring

Consistent with MM 27 from the WECS 20 FEIR, which requires all construction personnel to participate in a biological awareness training and for standard construction practices, an environmental training program would be prepared for construction contractors and on-site personnel. The environmental training would cover the sensitive resources found on site, flagging/fencing of exclusion areas, permit requirements, and other environmental issues and permit constraints. Construction site personnel would be required to attend the environmental training in conjunction with hazard and safety training prior to working on site. Construction employees would be instructed to avoid harassment and disturbance of wildlife, and training would reinforce that no plants or wildlife should be collected from the Project site.

The Project Applicant would use an on-site Compliance Manager and would require that construction contractors designate a Field Contact Representative to oversee their compliance during construction. The Field Contact Representative would be responsible for overseeing compliance with protective measures and coordination in accordance with the City, County, and other applicable regulatory agencies.

3.4.3.15 Facility Testing and Commissioning

As facilities are constructed, commissioning would take place to ensure all facilities are operating per applicable specifications. Each wind turbine would be tested and commissioned individually along with associated equipment. Upon all inspections being completed and certifications being provided by third-party inspectors, the Project would be fully operational and able to deliver energy to the electric grid.

3.4.4 Project Operations and Maintenance

The Project would not require an on-site O&M facility. An existing, off-site O&M building and yard would store critical spare wind turbine parts and provide a building for maintenance services. General equipment that would be stored at the O&M facility would include utility vehicles and other equipment that are necessary for operations.

O&M activities for the Project would remain similar to the O&M activities conducted for the existing facility. Regularly scheduled maintenance of the Project would generally include lubrication of mechanical parts, cleaning of blades, and changing of fluids, performed in conformance with the manufacturer's guidelines. In the event of equipment failure, major overhauls or component replacements would be required, necessitating use of cranes or other equipment similar to that used during construction. Crane pads created during the construction phase would be maintained during the life of the Project so that new crane pads would not need to be constructed for O&M activities; thus, cranes and other equipment needed for O&M activities would be able to use these existing disturbed pads. Maintenance personnel would be on site on a regular basis to service turbines, replace parts, and perform other maintenance duties.

The Project would use wind turbines designed with several levels of built-in safety measures to comply with OSHA and ANSI requirements. Personnel located at the O&M facility would monitor the wind turbines with the SCADA system. The SCADA system would allow for controlling and monitoring individual wind turbines, as well as the Project as a whole, from the O&M building. If problems occur, the SCADA system could send signals to a cell phone, tablet, computer, or other personal communication device to alert operations staff.

Each turbine would be serviced twice per year or as needed. Inoperative turbines would be repaired, replaced, or removed in a timely manner. Typical turbine servicing activities would include removing the turbine rotor, replacing generators, bearings, and deploying personnel to climb the towers to inspect and service parts above ground level, such as the blades or anemometers.

3.4.5 Future Project Decommissioning

The Project lifespan would be at least 30 years. When the proposed facility is decommissioned, the four wind turbines would be removed from the Project site and the materials would be reused or sold for scrap. Decommissioning activities are anticipated to include similar types of decommissioning-related activities as described in Section 3.4.1. All management plans, BMPs, stipulations, and requirements applicable to the decommissioning phase of the existing wind turbines would be similarly applicable to the decommissioning phase of the proposed Project. Depending on the future use of the Project site following removal of the four wind turbines, the site may need to be decompacted, recontoured, and/or hydroseeded to restore the site to a pre-development condition.

3.5 PROJECT OBJECTIVES

Local Purpose and Need

The Project would replace an existing wind energy facility containing approximately 69 antiquated wind turbines. Many of these wind turbines have been in operation for approximately 30 years and consist of several different models and sizes. While most of these wind turbines are still in operation producing energy, they are much less efficient than current wind turbine technology, require significant ongoing maintenance, and are generally reaching the end of their intended lifespan. The Project would significantly improve the energy production capability of the Project site by deploying new, efficient, state-of-the-art wind turbine technologies that would generate more power per wind turbine and require less maintenance compared to the existing wind turbine facility. The wind energy generation on the Project site would become more reliable for more consistent energy production with less downtime and loss in energy.

Statewide Purpose and Need

In 2002, California established its Renewables Portfolio Standard (RPS) Program with the goal of increasing renewable energy in the state's electricity mix to 20% by 2010. This standard became law in September 2006, when Governor Arnold Schwarzenegger signed Senate Bill (SB) 107. The 2004 Energy Report Update further recommended increasing the target, and Governor Schwarzenegger's 2008 Executive Order S-14-08 increased the goal to 33% by 2020. On April 12, 2011, Governor Jerry Brown signed SB X1-2, which expanded the RPS target established in SB 107 from 20% by 2010 to a target of 33% by December 2020. The Project would produce up to 17 MW of wind energy, which would help support California in meeting established RPS goals.

By January 1, 2012, the California Public Utilities Commission (CPUC) was required to establish the quantity of electricity products from eligible renewable energy resources to be procured by obligated load-serving entities, which provide electric service to individual and wholesale customers, to achieve targets of 20% by December 31, 2013; 25% by December 31, 2016; and

33% by December 31, 2020. In addition to the obligated load-serving entities covered by SB 107, SB X1-2 applies the RPS requirements to local, publicly owned electric utilities.

SB 350, known as the Clean Energy and Pollution Reduction Act of 2015, increased the RPS target from 33% to 50% by December 31, 2030. CPUC is responsible for enforcement of the RPS for investor-owned utilities, electric service providers, and community choice aggregators, and the California Energy Commission and the California Air Resources Board enforce the requirements for local, publicly owned electric utilities.

Senate Bill 100

SB 100 accelerates California's current mandate to achieve 50% of its electricity from renewable sources from 2030 up to 2026; and further establishes that California will generate 60% renewable electricity by 2030 and 100% by 2045.

Wind energy and other renewable energy sources are critical for meeting California's RPS requirements. In addition to helping the state meet its renewable energy goals, the Project would also provide economic benefits for the local economy during both the construction and operation phases including construction jobs, an increased tax base, and both a temporary increase in and a long-term continuation of local business activity.

Project Objectives

Consistent with this purpose and need, the primary objectives of the Project are as follows:

- **Objective 1:** Assist California in meeting its RPS target of 100% of the energy generated in the state being produced by renewable energy sources by December 2045.
- **Objective 2:** Generate approximately twice the energy on the Project site with the same electric capacity compared to the existing on-site wind turbines.
- **Objective 3:** Reduce the overall development footprint and visual "clutter" on the Project site by removing the existing on-site wind turbines and replacing them with new modern wind turbines at a much lower replacement ratio.
- **Objective 4:** Reduce the turbine blade rotational speeds, increase the rotor height, and expand the distances between the wind turbines on the Project site to allow for more visibility to avian species and increase avoidance potential.
- **Objective 5:** Improve worker safety on the Project site by replacing the existing on-site wind turbines with new modern turbines that include advanced safety features and technology.
- **Objective 6:** Improve both local and regional grid stability by repowering the Project site using new modern turbines with the capability to provide greater reactive power control.

- **Objective 7:** Create new tax revenues in Riverside County.
- **Objective 8:** Construct and operate a commercial wind facility prior to the December 30, 2020, expiration of the federal tax credit.
- **Objective 9:** Construct and operate a wind energy project that can attract commercially available financing.

3.6 PROJECT APPROVALS

The following discretionary actions would be required to implement the Project.

- Conditional Use Permit (CUP No. 01-18), City of Desert Hot Springs
- Variance (VAR No. 01-18), City of Desert Hot Springs
- Clean Water Act Section 401, Water Quality Certification, Regional Water Quality Control Board
- Clean Water Act Section 404, Discharge of Dredged or Fill Material Permit, U.S. Army Corps of Engineers
- Fish and Game Code 1602, Lake and Streambed Alteration Program, California Department of Fish and Wildlife
- Federal Aviation Administration, Determination of No Hazard, FAA
- Riverside County Airport Land Use Commission, Approval of structures taller than 200 feet above the ground level

3.7 REFERENCES

City of Desert Hot Springs. 2007. *Draft Environmental Impact Report for the Revised Commercial WECS 20 Permit Project*. March 2007.

City of Desert Hot Springs. 2019. "City of Desert Hot Springs General Plan Land Use Designations." Accessed April 2019. https://cdn2.hubspot.net/hubfs/4435988/pl%20DHS%20Exist%20Land%20Use%20Map.pdf.

SCAG (Southern California Association of Governments). 2009. "City of Desert Hot Springs Zoning Map." Accessed January 2018. http://webapp.scag.ca.gov/scsmaps/Maps/Riverside%20County/subregion/CVAG/Desert%20Hot%20Springs/image/Desert_Hot_Springs_ZN.pdf.

USGS (U.S. Geological Survey). 2018. "U.S. Wind Turbine Database." July 2018. Accessed August 23, 2018. https://eerscmap.usgs.gov/uswtdb/viewer/#3/37.25/-96.25.

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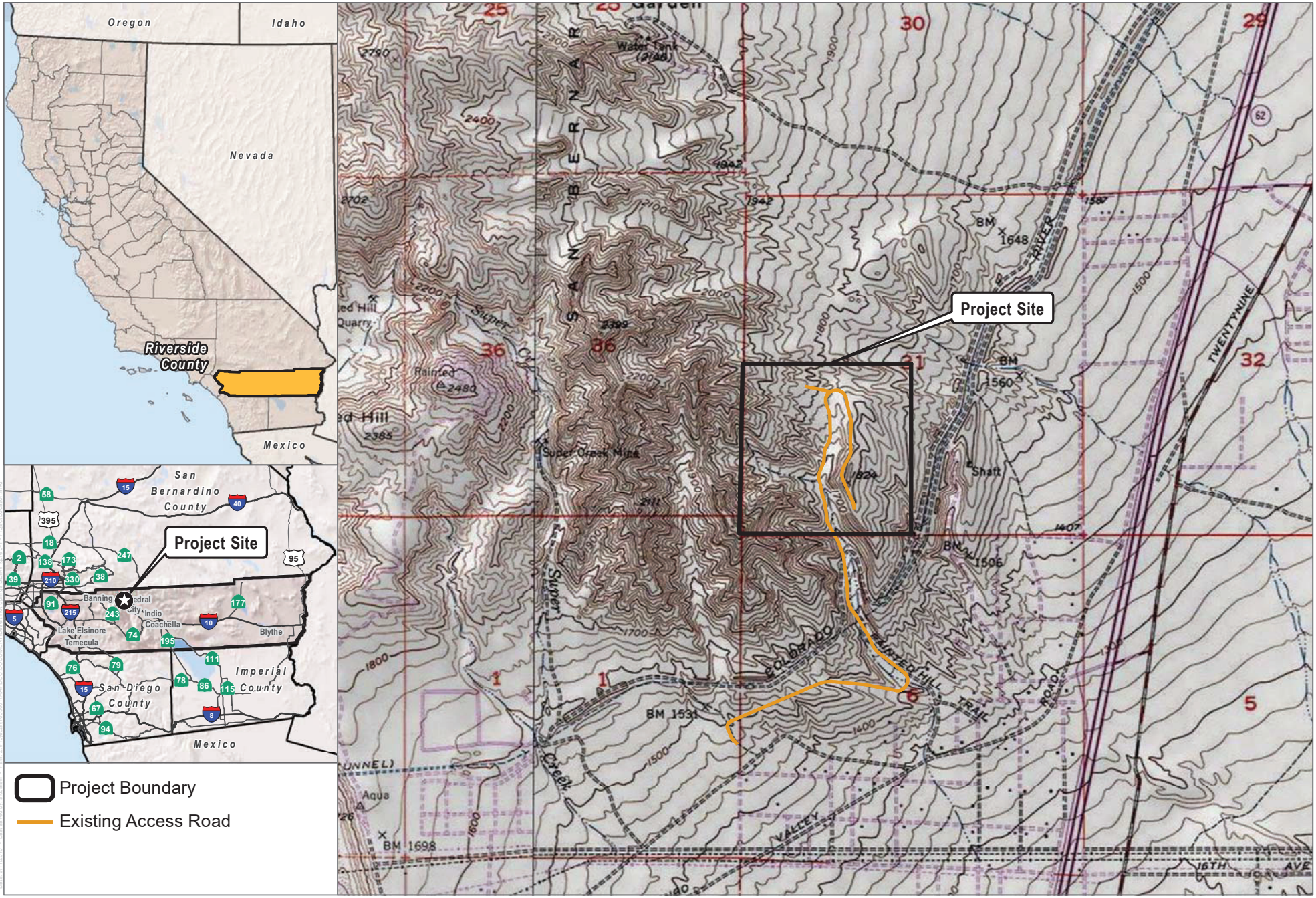

SOURCE: USGS 7.5 minute Desert Hot Springs Quadrangle

DUDEK

0 1,000 2,000 Feet

FIGURE 3-1

Project Location

Desert Hot Springs Wind Energy Repowering Project

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Photograph A

Photograph B

Photograph C

Photograph D

SOURCE: Dudek 2018

FIGURE 3-2

Existing Site Conditions

Desert Hot Springs Wind Energy Repowering Project

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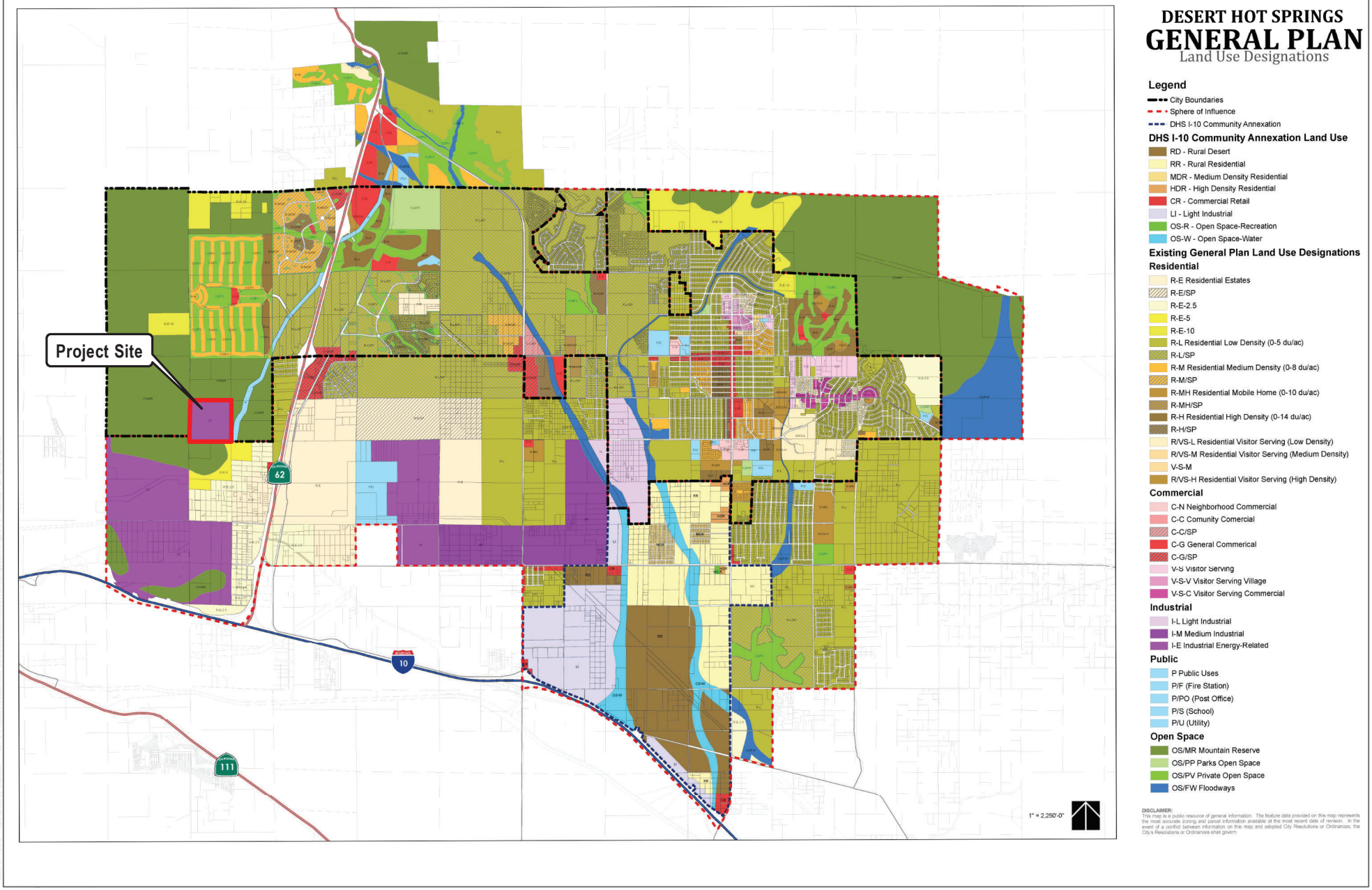

SOURCE: City of Desert Hot Springs 2000

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0 0.75 1.5 Miles

FIGURE 3-3

General Plan Land Use

Desert Hot Springs Wind Energy Repowering Project

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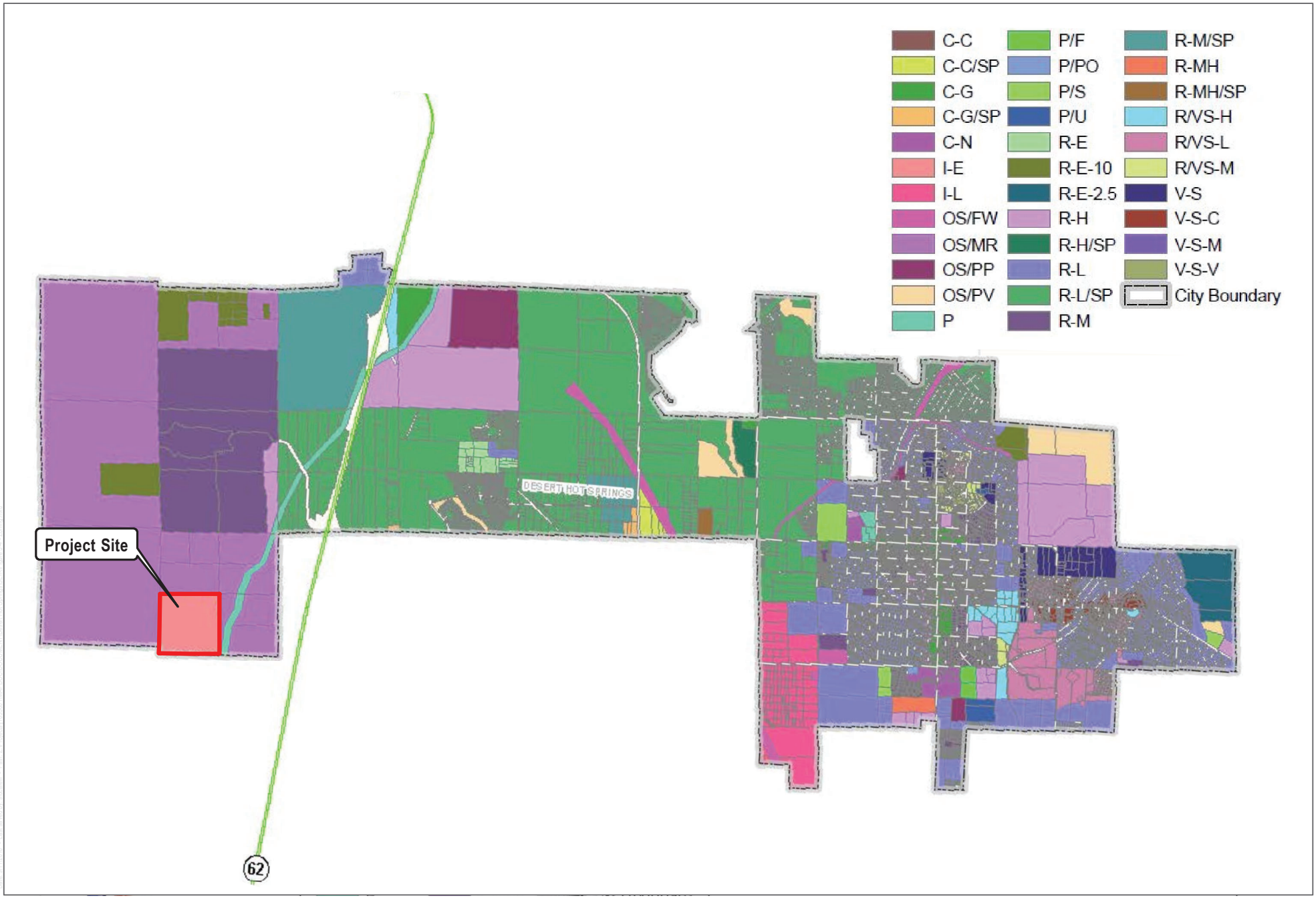

SOURCE: City of Desert Hot Springs, SCAG 2009

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FIGURE 3-4

Zoning

Desert Hot Springs Wind Energy Repowering Project

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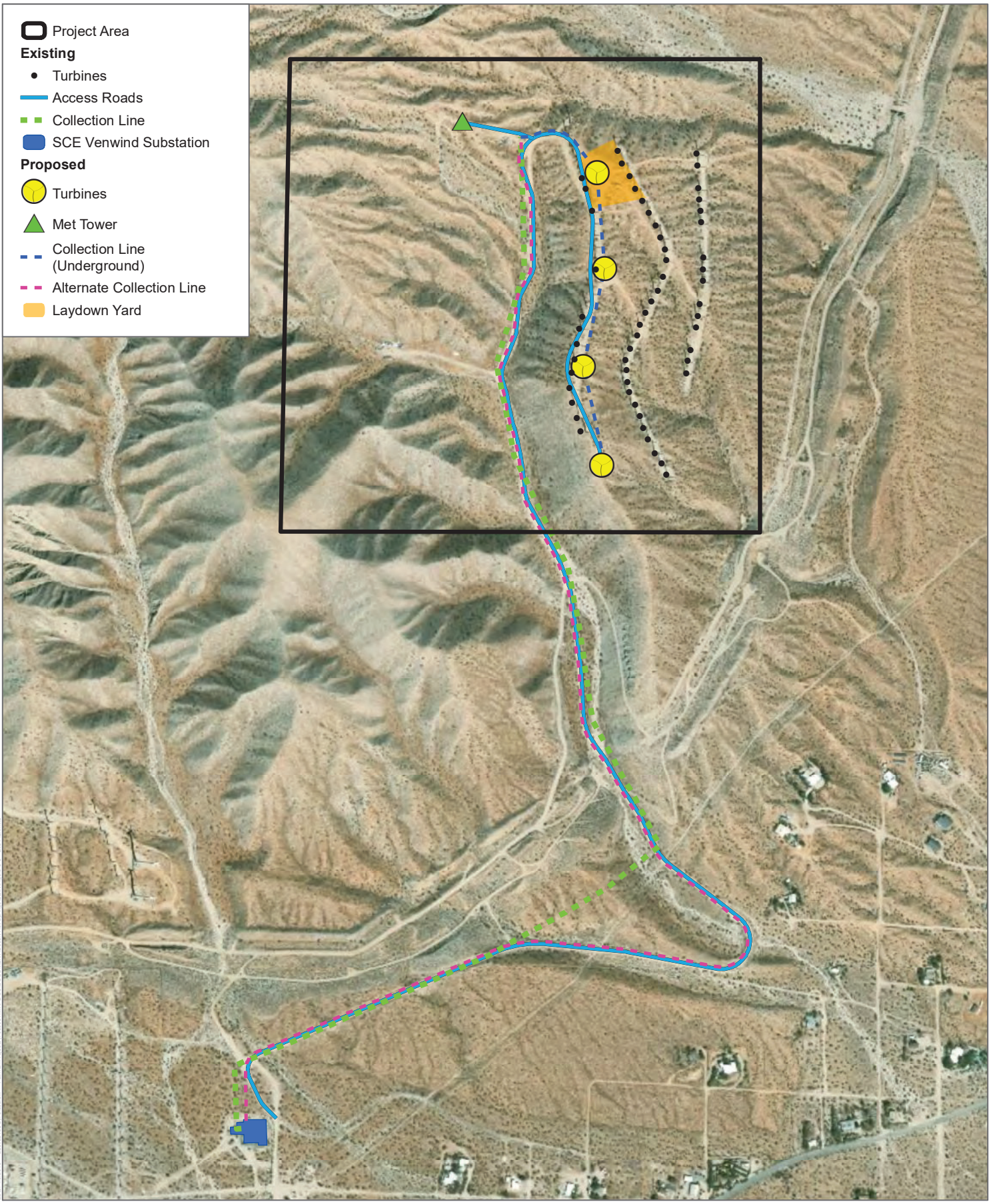

SOURCE: DigitalGlobe 2016

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0 500 1,000 Feet

FIGURE 3-5

Site Plan

Desert Hot Springs Wind Energy Repowering Project

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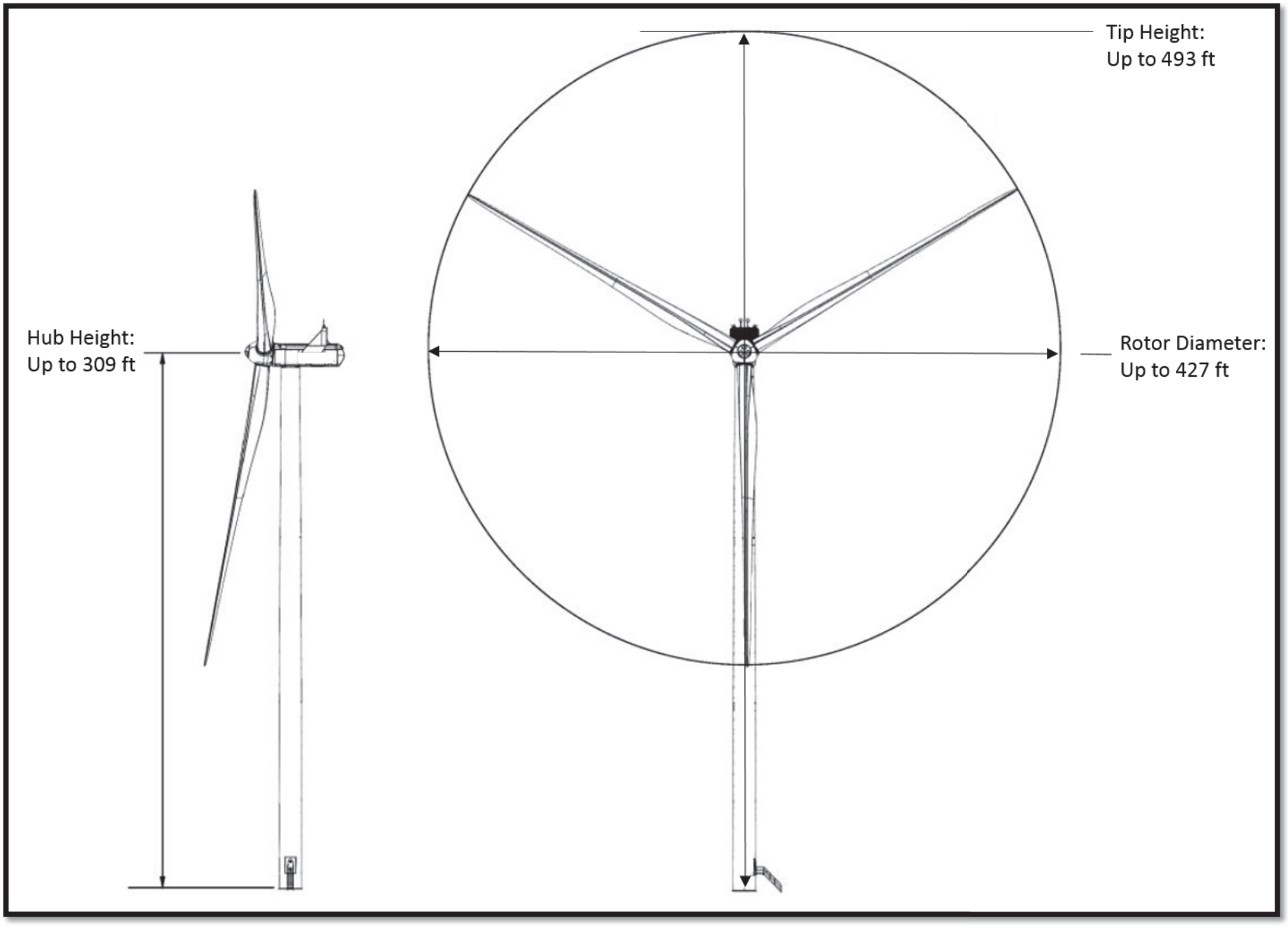

FIGURE 3-6

Project Turbine

Desert Hot Springs Wind Energy Repowering Project

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CHAPTER 4
ENVIRONMENTAL ANALYSIS

The purpose of this Draft Supplemental Environmental Impact Report (SEIR) is to evaluate the potential environmental effects of the Desert Hot Springs Wind Energy Repowering Project (Project). The City of Desert Hot Springs (City) circulated a Notice of Preparation (NOP) beginning on August 20, 2018, with the public review period ending on September 18, 2018. The NOP was transmitted to the State Clearinghouse, responsible agencies, other affected agencies, and other interested organizations and individuals to solicit comments regarding the scope of the environmental analysis to be addressed in the project's Draft SEIR. The NOP and comment letters received are contained in Appendix A to this Draft SEIR.

Sections 4.1 through 4.6 of this Draft SEIR contain the environmental impacts analysis associated with implementation of the Project, and focus on the following resource areas:

- Section 4.1 – Aesthetics
- Section 4.2 – Air Quality
- Section 4.3 – Biological Resources
- Section 4.4 – Cultural and Tribal Cultural Resources
- Section 4.5 – Greenhouse Gas Emissions
- Section 4.6 – Noise

Because of proposed changes between the previously proposed project and the current Project, many of the impact conclusions presented in the prior Final EIR would not change. As a result, the City has "focused out" the following resource areas, which are analyzed and addressed in Appendix A. All applicable mitigation measures included in the Final EIR for these topics still apply to the current Project. Mitigation measures for the following resource areas are provided in the Section 15163 Study, which is appended to this document as Appendix A:

- Agriculture and Forestry Resources
- Energy
- Geology/Soils
- Hazards/Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning
- Mineral Resources
- Population/Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities/Service Systems
- Wildfire

Technical Studies

Technical studies were prepared to analyze aesthetics, air quality and greenhouse gas emissions, biological resources, cultural and tribal cultural resources, and noise, and were used in the preparation of this Draft SEIR. These documents are identified in the discussions in the individual environmental issues and are included as technical appendices to this Draft SEIR. They are also available at the following location:

In Person:

City of Desert Hot Springs, Community Development Department
65950 Pierson Boulevard
Desert Hot Springs, California 92240
760.329.6411

City of Desert Hot Springs Public Library
11691 West Drive
Desert Hot Springs, California 92240

Online:

https://www.cityofdhs.org

Analysis Format

The Draft SEIR assesses how the Project would impact each of the above-listed resource areas. Each environmental issue addressed in this Draft SEIR is presented in terms of the following subsections:

- **Existing Conditions**: Provides information describing the existing setting on and/or surrounding the project site that may be subject to change as a result of implementation of the Project. This setting discussion describes the conditions that existed when the NOP was sent to responsible agencies and the State Clearinghouse.
- **Relevant Regulations, Plans, Policies, and Ordinances:** Provides a discussion of federal, state, regional, and local regulations, plans, policies, and ordinances applicable to the Project.
- **Thresholds of Significance**: Provides criteria for determining the significance of Project-related impacts for each environmental issue.
- **Impact Analysis**: Provides a discussion of the characteristics of the Project that may have an impact on the environment, analyzes the nature and extent to which the Project is expected to change the existing environment, and indicates whether the Project's impacts

would meet or exceed the significance thresholds. Each discussion also includes an analysis of cumulative impacts.

- **Mitigation Measures**: Identifies mitigation measures to reduce significant adverse impacts resulting from implementation of the Project to the extent feasible.
- **Level of Significance After Mitigation**: Provides a discussion of significant adverse environmental impacts that cannot be feasibly mitigated or avoided, significant adverse environmental impacts that can be feasibly mitigated or avoided, adverse environmental impacts that are not significant, and beneficial impacts.

California Environmental Quality Act Guidelines Environmental Checklist

In January 2018, the Governor's Office of Planning and Research transmitted its proposal for the comprehensive updates to the California Environmental Quality Act (CEQA) Guidelines to the California Natural Resources Agency (CNRA). Among other things, this package included proposed updates related to the Appendix G Environmental Checklist, which is the checklist used by the City. The changes have been approved by the Office of Administrative Law and were filed with the Secretary of State. The updated Guidelines became effective on December 28, 2018. The revisions to the Guidelines apply to steps in the CEQA process not yet undertaken by the effective date of the revisions (14 CCR 15007(b)). (The revised Guidelines will apply to a CEQA document only if the revised Guidelines are in effect when the document is sent out for public review (14 CCR 15007 (c)).)

The CNRA revised the Appendix G Environmental Checklist in several ways. First, it reframed or deleted certain questions that should be addressed in the planning process to focus attention on those issues that must be addressed in the CEQA process. Second, it added questions and sections that, although required by current law, tend to be overlooked in the environmental review process. Finally, it revised the questions related to transportation impacts and wildfire risk, as required by Senate Bill 743 and Senate Bill 1241, respectively, and relocated questions related to paleontological resources, as required by Assembly Bill 52.

As part of the reorganization of the Appendix G Environmental Checklist, the CNRA also updated some considerations or questions to the checklist. For those resource areas addressed in Sections 4.1 through 4.6 of this Draft SEIR, these changes, and how they are addressed in this document, are described below:

- **Aesthetics**: The previous Appendix G Environmental Checklist asks whether a project would degrade the existing visual character of a site. Per the CNRA, visual character is a particularly difficult issue to address in the context of environmental review, in large part because it calls for exceedingly subjective judgments. Both federal and state courts have struggled with the issue of precisely what questions related to aesthetics are relevant to an

analysis of environmental impact. (See, e.g., *Maryland-National Cap. Pk. & Pl. Com'n. v. U.S. Postal Serv.* (DC Cir. 1973) 159 U.S. App. DC 158; see also *Bowman v. City of Berkeley* (2006) 122 Cal.App.4th 572.)

For these reasons, the CNRA recast the previous question on "visual character" to ask whether the project would be consistent with zoning or other regulations governing visual character. This change is intended to align with the analysis of the aesthetics issue in the Bowman case. The analysis in this document addresses the proposed Project's conformity to regulations governing visual character.

- **Air Quality**: The previous Appendix G Environmental Checklist asks whether a project would create objectionable odors. The CNRA updated this question in several ways. First, it recast the question to focus on a project's potential to cause adverse impacts to substantial numbers of people. (See *Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App.4th 477, 492–493 ("Under CEQA, the question is whether a project will affect the environment of persons in general, not whether a project will affect particular persons"); see also *Banker's Hill, Hillcrest, Park West Community Preservation Group v. City of San Diego* (2006) 139 Cal.App.4th 249, 279.) Similarly, the CNRA included odor as one of several examples of potential localized air quality impacts.

  Additionally, the CNRA combined the two questions from the previous Appendix G Environmental Checklist relating to criteria air pollutants into a single question. This change was made in response to new guidance established by some of the state's air quality management districts and air pollution control districts that finds that projects resulting in a less-than-significant project-level impact related to criteria pollutants emissions would, by default, also result in a less-than-cumulatively-considerable impact related to criteria pollutants emissions. The analysis in this document addresses air quality impacts as framed by the new Appendix G Environmental Checklist.

- **Biological Resources and State Wetlands**: The previous Appendix G Environmental Checklist asked whether a project would substantially adversely affect a federally protected wetland. California law protects all waters of the state, while the federal Clean Water Act governs only "navigable waters." Because nothing in CEQA's definition limits consideration to federally regulated resources, the CNRA clarified in the Appendix G Environmental Checklist that lead agencies should consider impacts to wetlands that are protected by either the state or the federal government. The analysis in this document addresses impacts to wetlands protected under both state and federal law.

- **Cultural Resources**: Assembly Bill 52 required an update to the Appendix G Environmental Checklist to separate the consideration of paleontological resources from tribal cultural resources and update the relevant questions, and to add consideration of tribal cultural resources with relevant questions. In September 2016, the Office of

Administrative Law approved changes to the Appendix G Environmental Checklist adding consideration of tribal cultural resources. This current package includes an amendment to the Appendix G Environmental Checklist that separates the consideration of paleontological resources from cultural resources, and includes consideration of paleontological resources among the relevant questions related to geology and soils. This document separately considers paleontological resources from other cultural resources.

- **Noise**: The previous Appendix G Environmental Checklist asks whether a project would result in exposure of persons to or generation of noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies, and whether a project would result in a substantial permanent or temporary increase in noise levels in the project vicinity above levels existing without the project. Acknowledging that these questions are redundant, the CNRA consolidated these questions into a single question, asking whether a project would generate 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. This document addresses noise impacts in a manner consistent with the new Appendix G Guidelines.

The aforementioned updates to the Appendix G Environmental Checklist questions pertaining to aesthetics, air quality, biological resources, cultural resources, and noise were undertaken by the CNRA in an effort to clarify, consolidate, and remove redundancy. Fundamentally, the same questions are being asked by the Appendix G Environmental Checklist, albeit in a different—and sometimes streamlined—manner. None of the updates to the Appendix G Environmental Checklist have changed the approach or methodology through which impact determinations are formed. For this reason, the questions presented in Sections 4.1 through 4.6 of this Draft SEIR are derived from the previous Appendix G Environmental Checklist, but the answers to these questions also address the updated Appendix G Environmental Checklist questions.

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4.1 AESTHETICS

This section describes the existing visual resources and setting within the Project area, identifies applicable regulatory requirements, evaluates potential impacts compared to the impacts identified in the WECS 20 Permit Project Final Environmental Impact Report (WECS 20 FEIR), and identifies mitigation measures related to implementation of the Desert Hot Springs Wind Energy Repowering Project (Project).

In addition to the documents incorporated by reference (see Section 2.8 of Chapter 2, Introduction, of this Draft Supplemental Environmental Impact Report (SEIR)), the following analysis is based on the following source, which is found in Appendix C of this Draft SEIR:

- April 2018 Visual Resources Study for the Desert Hot Springs Wind Energy Repowering Project prepared by Dudek.

4.1.1 Existing Conditions

4.1.1.1 Regional Setting

The Project is located in the northwestern Coachella Valley on the western boundary of the City of Desert Hot Springs (City). The Coachella Valley is approximately 15 miles wide and 45 miles long, and stretches from the San Bernardino and San Jacinto mountain ranges on the west to the Salton Sea on the east. The San Jacinto Mountains and the Santa Rosa Mountains abut the Coachella Valley on the west and south, and the San Bernardino Mountains and Little San Bernardino Mountains border the Coachella Valley on the north and west. Washes and streams traverse the Coachella Valley floor; however, the washes and streams are typically dry throughout the year. Anthropogenic modifications in the Project area include residential development, energy development, and roadway infrastructure. These uses and others are described in greater detail below in Section 4.1.1.3.

4.1.1.2 Project Site

The Project site is immediately bounded by primarily undeveloped land to the north, south, west, and east. Primary access to the Project site would continue to be provided through an existing private dirt access road off Windhaven Road. State Route (SR) 62 is located approximately 0.70 miles to the east of the Project site (see Figure 3-1 in Chapter 3, Project Description).

The Project site encompasses steeply and moderately sloping terrain that is traversed by dirt access roads and topped with three parallel rows of wind turbines. Approximately 69 wind turbines are located on sloping terrain and atop a low ridgeline that occurs in the eastern portion of the Project

site (see Figure 3-5 in Chapter 3). Predominant existing wind turbine features include three approximately 40-foot-long blades attached to a whitish or greyish nacelle supported by a tall, approximately 75-foot-high greyish steel tower. Each row of wind turbines is accessible through a linked system of north–south dirt access roads. An existing electrical collection line supported by approximately 40-foot-tall wood poles is also located on the Project site.

In addition to existing wind turbines on the eastern portion, the Project site is covered with tan soils and speckled with small rocks and boulders. Tufts of low golden grasses and low, mounded scrub shrubs are scattered throughout the Project site.

Photos of the Project site are included in Figure 3-2 in Chapter 3.

4.1.1.3 Surrounding Area

The area surrounding the Project site consists of the slopes of the San Bernardino mountains to the north and west and a regional water conveyance facility, undeveloped desert, rural residential development, and SR-62 to the east. In addition, wind energy facilities are located to the southeast of the Project site (south of the slopes of the San Bernardino Mountains), south of the Project site (south of rural residential development), and east of SR-62.

The nearest wind turbines are located 0.40 miles to the southeast of the Project site. Strings of wind turbines are also located approximately 0.90 miles to the east (east of SR-62) and 1.1 miles to the south (south of rural residential development) of the Project site. As with wind turbines on the Project site, wind turbines in the area are typically installed in linear rows that are connected by dirt access roads. Wind turbines supported by tall, tubular, greyish-white colored towers and wind turbines supported by shorter steel-lattice towers are located in the surrounding area. The majority of wind turbines are installed on flat to moderately sloping terrain located to the south and southeast of the Project site. However, strings of wind turbines (including the 69 existing wind turbines on the Project site) are installed on steeply sloping terrain. The heights of the turbines in the area range from approximately 285 feet to 336 feet tall.

Existing wind turbine development in the area is illustrated on Figure 4.1-1A (see Photographs A and B) and Figure 4.1-1B (see Photograph H).

Photograph A: View from Old Morongo Road southwest towards existing wind turbine development near the Project site

Photograph B: View from Windhaven Road east towards wind turbine development in western Coachella Valley

Photograph C: View north from Old Morongo Road towards residences and Project site

Photograph D: View northwest from Old Morongo Road towards residences and Project site

SOURCE: Dudek 2018

FIGURE 4.1-1A

Existing Visual Conditions: Surrounding Area

Desert Hot Springs Wind Energy Repowering Project

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Photograph E: View southwest from Pierson Boulevard towards residences and wind turbines on Project site

Photograph F: View northeast from Esparta Avenue towards residences

Photograph G: View northeast from Pierson Road towards main entrance to the Skyborne residential development

Photograph H: View south from Windhaven Road towards wind turbine development and small electrical substation

SOURCE: Dudek 2018

FIGURE 4.1-1B

Existing Visual Conditions: Surrounding Area

Desert Hot Springs Wind Energy Repowering Project

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As shown in Photographs A, B, and H, wind turbines in the area tend to clutter and interrupt views of the otherwise open desert landscape. In addition, the vertical lines associated with wind turbines on the Project site briefly interrupts views of the San Bernardino Mountains from northbound SR-62 and Worsley Road as motorists approach and pass the community of Painted Hills.

The community of Painted Hills is located west of SR-62 and to the east and south of the Project site. The unincorporated community consists of approximately 60 single-story, single-family homes that are accessible from SR-62 via Painted Hills Road/Old Morongo Road. Homes are concentrated along Old Morongo Road and incorporate recurring features including exterior wood beams and trim, lightly colored stucco cladding, and slightly pitched roofs. Most residences are visible from Old Morongo Road; however, several are partially obscured by desert shrubs and landscaping (see Figure 4.1-1A, Photographs C and D). An additional residential neighborhood is located approximately 0.60 miles to the northeast of the Project site (see Figure 4.1-1B, Photographs E and F). The neighborhood consists of approximately 45 homes that are accessible from Pierson Boulevard and Salton View Road.

The community of Bonnie Bell is located approximately two miles to the west of the Project site. The small unincorporated community is located adjacent to the braided and vegetated Whitewater River and within narrow Whitewater Canyon, which is bordered by steep slopes to the east and west. Homes are concentrated along a 0.30-mile stretch of Whitewater Canyon Road and consist of single-story structures on fenced and densely landscaped (tall palm and pine trees are common plantings) properties. The (approximately) 15 homes within the community are accessible from Interstate (I) 10 by Whitewater Canyon Road.

4.1.1.4 Viewer Groups

Viewer groups in the Project area primarily consist of motorists and Painted Hills residents. In addition, recreationists on higher elevation terrain of the Sand to Snow National Monument have views of the Project area viewshed. These viewer groups are described in greater detail below.

Motorists

State Route 62

At its closest point, the Project site is located 0.70 miles from SR-62, a four-lane divided highway. From northbound SR-62, the Project site is visible between Dillon Road to approximately 0.65 miles south of Pierson Road (a distance of approximately 1.85 miles). From southbound SR-62, the Project site is within the normal (i.e., non-peripheral) field of vision of motorists from approximately Mission Creek Road to Fairview Road (approximately 2.7 miles). Existing views from the state highway near the Project area are generally open but occasionally obstructed by tall,

yet isolated, shrubs and trees that are scattered along the corridor. Wind energy facilities in the Coachella Valley (including wind turbines on the Project site) are visible from both north- and southbound SR-62. Views from the southbound travel lanes are long and wide and encompass a significant portion of development along the I-10 corridor.

Each day approximately 20,000 vehicles travel on SR-62 between the I-10 interchange and Pierson Boulevard to the north (Caltrans 2018a). In Riverside County, SR-62 is an officially designated state scenic highway (see Figure 4.1-2) (Caltrans 2018b). Due to the scenic designation, motorists on SR-62 are considered highly sensitive to changes in the visual landscape.

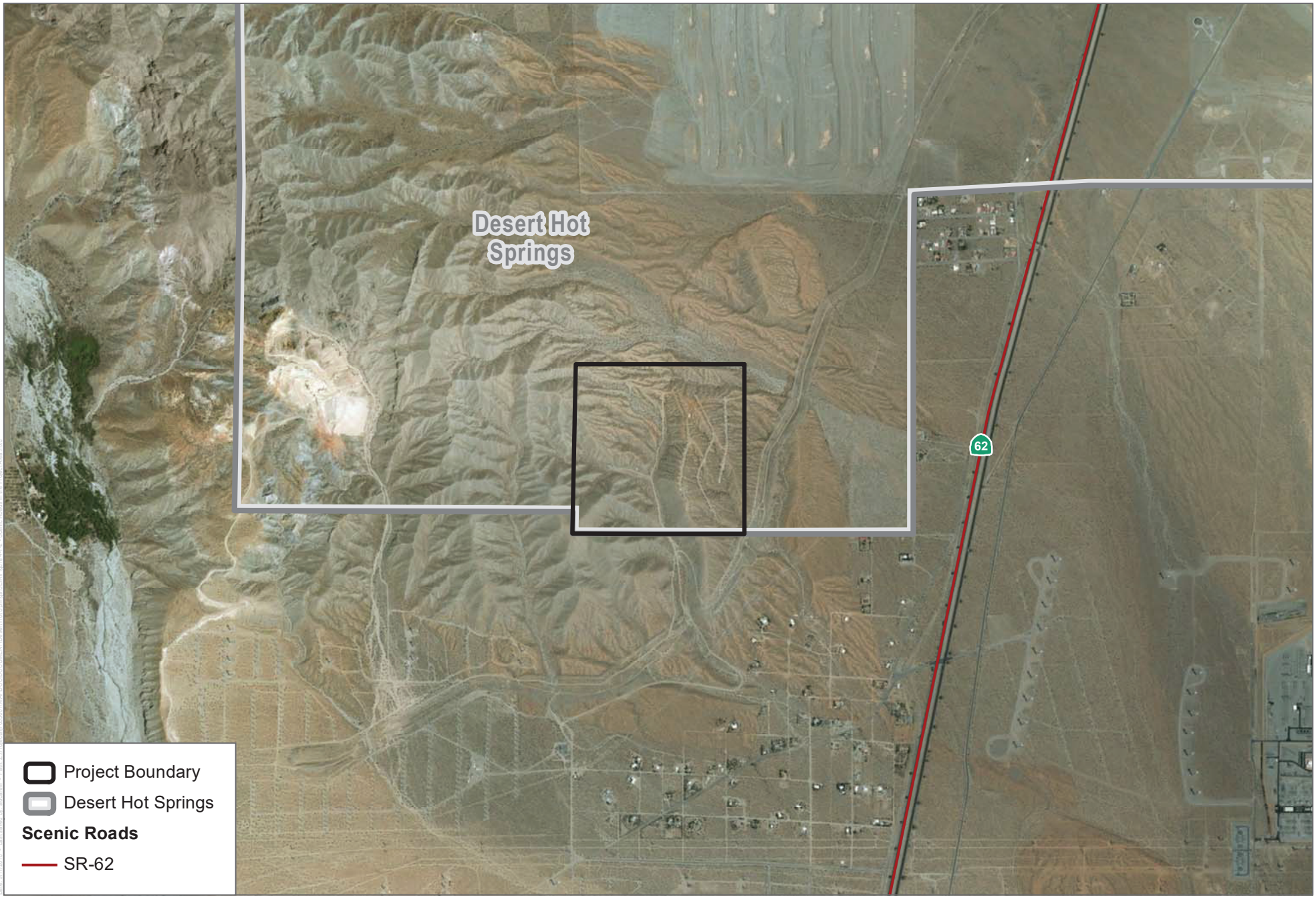
Photographs toward the Project site were taken from Salton View Road (parallels SR-62 on the west) and Worsley Road (parallels SR-62 on the east) (see Figure 4.1-3A). Due to their proximity to the state highway, the photographs approximate the views from SR-62 toward the Project site.

I-10

An eight-lane, east–west interstate, I-10 provides access to desert communities located throughout the Coachella Valley and the regional highway network that includes SR-111 and SR-62. At its nearest point (i.e., at the SR-62 interchange), the westbound travel lanes of I-10 are located approximately 2.2 miles south of the Project site.

The Project site is not within the normal field of vision of eastbound I-10 motorists. As viewed from westbound I-10, generally between North Indian Canyon Drive and the Wall Road bridge over the interstate approximately 2.6 miles to the southeast, existing wind turbines on the Project site are occasionally blocked from view by irregular clusters of trees and intervening terrain. Where views to the north and northwest are available, existing wind turbines on the Project site are difficult to detect. Compared to the aged wind turbines on the Project site that are located in the middle ground viewing zone (i.e., between 0.5 to 4 miles away from the observer), wind turbines located in closer proximity are visually prominent along the approximately 2.3-mile segment of the interstate between North Indian Canyon Drive and Wall Road. As a result, wind turbines on the Project site are inconspicuous as viewed from I-10.

An existing photograph from westbound I-10 approximately 3.15 miles southeast of the Project site is provided on Figure 4.1-3B.



SOURCE: DigitialGlobe 2016

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FIGURE 4.1-2

Scenic Roads in the Project Area

Desert Hot Springs Wind Energy Repowering Project

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View west from Salton View Road (approximate view from SR-62) towards Project site (located approximately 0.65 mile away)

View southwest from Worsley Road near SR-62 towards Project site (located approximately 1.2 miles away)

SOURCE: Dudek 2018

FIGURE 4.1-3A

Existing Views from Regional and Local Roads

Desert Hot Springs Wind Energy Repowering Project

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View northwest from westbound I-10 towards
Project site (approximately 3.15 miles away)

View southwest from Pierson Boulevard at SR-62 towards
Project site (located approximately 1 mile away)

SOURCE: Dudek 2018

FIGURE 4.1-3B

Existing Views from Regional and Local Roads

Desert Hot Springs Wind Energy Repowering Project

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Approximately 87,000 vehicles travel daily on I-10 between the northbound SR-62 junction and North Indian Canyon Drive (located 4.5 miles southeast of the Project site in the City of Palm Springs) each day (Caltrans 2018b). While I-10 is not a state-designated scenic highway, two segments of the interstate within the City of Palm Springs boundary (i.e., between SR-111 and Whitewater Canyon Road and Diablo Road and North Gene Autry Trail) are designated as city-wide scenic corridors (City of Palm Springs 2007). Thus, motorists on I-10 are considered to have high sensitivity to visual changes in the landscape.

Dillon Road

While eastbound motorists are not provided views to the Project site, westbound motorists on Dillon Road, generally east of North Indian Canyon Drive, are provided direct views. Existing wind turbines on the Project site are detectable in views from Dillon Road west of Valley View Drive (approximately 1.8 miles away), but due to distance and scale, the features are not visually prominent. Further, on the approach to SR-62, numerous tall and visually prominent wind turbines are located closer to the roadway and to the west and tend to command the attention of westbound Dillon Road motorists.

In their 2015 Traffic Census Report, the Coachella Valley Association of Governments listed the average daily traffic (ADT) on the road west of North Indian Canyon Drive as 2,318 vehicles (CVAG 2015). While Dillon Road is identified as an "entry to the community" in the City's General Plan, the road has not been designated scenic by the City. Thus, motorists on Dillon Road are considered moderately sensitive to changes in the visual landscape.

Pierson Boulevard

Pierson Boulevard, a paved, east–west, two-lane road, parallels Dillon Road for approximately 6 miles and provides local access from SR-62 to the City's downtown area. West of SR-62, Pierson Boulevard is designated a Major Arterial in the General Plan (City of Desert Hot Springs 2000). West of SR-62, the roadway is not included on the Roadway Classification Map (Exhibit III-4) of the General Plan but two paved lanes extend west and provide access to limited residential development. In 2015, ADT on Pierson Boulevard (west of Little Morongo Drive) was 4,771 vehicles (CVAG 2015). Similar to Dillon Road motorists, Pierson Boulevard motorists are considered moderately sensitive to changes in the visual landscape.

Westerly views from the westbound travel lanes of Pierson Boulevard are open; however, an electrical line supported by tall, regularly spaced wood poles parallels the eastbound lane and regularly interrupts the available view. In addition, tall and arching traffic light poles are occasionally installed on Pierson Boulevard. The Project site is visible from Pierson Boulevard.

An existing view from Pierson Boulevard at SR-62 toward the Project site is provided on Figure 4.1-3B.

Worsley Road

Worsley Road is a paved, two-lane, north–south road that parallels SR-62 on its east side from I-10 north to North Indian Canyon Drive. Westerly views to the Project site from Worsley Road are typically open and unencumbered by intervening features. Worsley Road is located at a lower elevation than the SR-62 travel lanes; however, because the Project site occurs above the SR-62 sightline, highway vehicles do not block the Project site from view. Existing wind turbines are viewed against the backdrop of tan colored mountainous terrain and open sky and are visible above the ridgeline.

Classified as a Major Collector by the City's General Plan, the 2015 ADT on Worsley Road south of Pierson Boulevard was 176 (CVAG 2015). While views to mountainous terrain including San Jacinto Peak and San Gorgonio Mountain are available, Worsley Road is not designated scenic by the City. Thus, motorists on the road are considered moderately sensitive to changes in the visual landscape.

An existing view from Worsley Road toward the Project site is provided on Figure 4.1-3B.

Old Morongo Road

Old Morongo Road, located south of the Project site, is a paved, unmarked, two-lane road that provides local access from SR-62 to the Painted Hills residential community and wind turbine developments. Views to existing wind turbines on the Project site from Old Morongo Road range from unobscured to partially obscured. Utility poles and trees occasionally occur to the north of the road; however, these features tend to display a thin form and do not substantially block from view existing wind turbines on the Project site. Both the light color and line displayed by nacelles and blades are visible, and lightly colored towers are also detectable from Old Morongo Road. As motorists travel west on the road, terrain to the immediate south of the Project site partially screens wind turbines from view. In addition to wind turbines on the Project site, wind turbine developments are located to the south and west of Old Morongo Road and contribute to the visual character.

Old Morongo Road (west of SR-62) is outside of the City's corporate limits and the road is not designated scenic by the County of Riverside (County of Riverside 2015). While Old Morongo Road is assumed to experience a low volume of daily traffic (traffic counts for the road are not available from the County of Riverside or the Coachella Valley Association of Governments), motorists are considered to have low to moderate sensitivity to changes in the visual landscape.

In addition to Photographs C and D on Figure 4.1-1A, an existing view from Old Morongo Road to the Project site is provided on Figure 4.1-3C.

View west from Worsley Road towards Project site (located 0.75 miles away)

View northwest from Old Morongo Road towards Project site (approximately 0.65 mile away)

SOURCE: Dudek 2018

FIGURE 4.1-3C

Existing Views from Regional and Local Roads

Desert Hot Springs Wind Energy Repowering Project

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Residents

Residential development within the Project area consists of dispersed rural residential communities and planned residential neighborhoods. The rural residential community located closest to the Project site, Painted Hills, is located on unincorporated County of Riverside lands.

While considered private, views from residences in Painted Hills to the Project site range from open and relatively unencumbered to partially screened. For example, Painted Hills homes located to the northeast, east, and southeast of the Project site are generally provided clear views to existing wind turbines; however, terrain and/or private yard landscaping may reduce views of existing wind turbines. For example, hilly terrain to the immediate south of the Project site partially screens the eastern and lower elevation rows of wind turbines from views of residences to the south. Existing views from residences in the Painted Hills community are similar to those provided on Figure 4.1-1A (see Photographs C and D), Figure 4.1-1B (see Photograph E), and Figure 4.1-3C. Due to their familiarity with the landscape and proximity, residents of Painted Hills are considered highly sensitive to changes in the visual environment.

Due to intervening terrain and dense vegetation that occurs west of the Project site along the Whitewater River corridor, the Project site is not visible to residents of Bonnie Bell.

The nearest tract-style residential development is located approximately two miles to the northeast of the Project site. The Skyborne residential neighborhood is constructed one mile east of SR-62 and immediately north of Pierson Boulevard. The Project site is located in the middle ground viewing zone from Skyborne homes and, due to distance and intervening features in private yards, existing wind turbines on the Project site are partially obscured from view. Due to distance, screening elements, and diminished visibility to the Project site, residents of the Skyborne neighborhood are considered to have moderate to low sensitivity to changes in the visual environment.

Recreationists

Whitewater Preserve

Managed by the Wildlife Conservancy and publicly accessible from Whitewater Canyon Road, the Whitewater Preserve consists of 2,851 acres of public land generally along and including the Whitewater River. The preserve ranger station and a public parking lot are located approximately 3.2 miles northwest of the Project site. An approximately 0.60-mile segment of the preserve's Canyon View Loop Trail traverses a lower ridgeline of the San Bernardino Mountains to the west of the Whitewater River; however, existing wind turbines on the Project site are not visible from the trail due to intervening terrain.

An existing view from the ridgeline section of the Canyon View Loop Trail towards the Project site is presented on Figure 4.1-4.

Pacific Crest National Scenic Trail

The Pacific Crest National Scenic Trail is accessible from the Whitewater Preserve, and a segment of the Canyon View Loop Trail overlaps with the national scenic trail. The Project site is not visible from the national scenic trail as it climbs out of the Whitewater River canyon and overlaps the Canyon View Loop Trail. In addition, wind turbines on the Project site are blocked from view of recreationists on a higher elevation segment of the trail to the west of the Canyon View Loop Trail by intervening mountain terrain.

Sand to Snow National Monument

The Whitewater Preserve and segment of the national scenic trail in the Project area are within the boundaries of Sand to Snow National Monument. The national monument consists of 154,000 acres of public lands that includes U.S. Bureau of Land Management (BLM) lands on the Coachella Valley floor, preserves owned by the Wildlife Conservancy (including the Whitewater Preserve), and San Bernardino National Forest lands. In addition to comprising a wide range of ecosystems and wildlife habitat, the national monument provides public recreational opportunities including camping, hiking, backpacking, and climbing (USFS 2019).

Formal trails have not been established on higher elevation terrain and ridgelines of the national monument within the Project viewshed. It can be expected, however, that recreationists at higher elevations of National Monument lands to the north and northwest would have intermittent views of the Project site.

View southeast from Canyon Overlook Trail (Whitewater Preserve/Sand to Snow National Monument) towards Project site (approximately 3.2 miles away)

View northeast from Palm Springs Aerial Tramway Mountain Station towards Project site (located approximately 9 miles away)

SOURCE: Dudek 2018

FIGURE 4.1-4

Existing Views from Recreational Areas

Desert Hot Springs Wind Energy Repowering Project

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Palm Springs Aerial Tramway

The Palm Springs Aerial Tramway travels over 2.5 miles from the Valley Station (elevation 2,643 feet) in the foothills of the San Jacinto Mountains to the Mountain Station at an elevation of 8,516 feet. The tramway and Mountain Station (located approximately 9.3 miles from the Project site) are a major gateway to Mount San Jacinto State Park and State Wilderness and Santa Rosa and San Jacinto Mountains National Monument. These areas provide recreational opportunities including hiking, camping, and guided nature walks in the summer (Palm Springs Aerial Tramway 2018).

Due to the prominent vantage point available to viewers from the Mountain Station observation deck and peaks in the state park, views from the tramway and state park peaks are considered scenic vistas for purposes of this analysis. Regarding the Project site, with the exception of the views from tramcars, Mountain Station observation deck, and peaks in the state park and state wilderness areas, views to the Project site from recreational areas including trails, picnic areas, and campgrounds within the state park and state wilderness boundary are obstructed by intervening terrain and vegetation. Due to year-round use of the tramway and state park, volume of visitors, federal and state designations, and availability of views of the Coachella Valley and surrounding mountains, recreationists/visitors to the Mountain Station observation deck are highly sensitive to changes in the visual landscape.

An existing view from the tramway and Mountain Station observation deck toward the Coachella Valley floor, the SR-62 corridor, and mountainous terrain to the north is provided on Figure 4.1-4.

4.1.1.5 Lighting and Glare

Existing sources of lighting in the Project area primarily consist of exterior and interior lighting on rural residential properties in the community of Painted Hills and residences in the City. The larger wind turbines in the Project area, including several installed east of SR-62 and along the I-10 corridor, are affixed with required Federal Aviation Administration (FAA) obstruction lighting that pulses a red light during the night and early morning hours. In addition, commercial and industrial business along the I-10 corridor near the North Indian Canyon Drive interchange contribute nighttime lighting to the existing visual environment.

With the exception of lighting previously described and sources of glare commonly associated with residential development (i.e., glass, metal building materials), sources of glare in the Project area are generally limited. Two operating photovoltaic solar installations are located north of I-10, west of North Indian Drive, south of Dillon Road, and east of SR-62. These single-axis panel facilities may generate localized glare throughout the day that could be temporarily experienced by I-10 and Worsley Road motorists. In addition, the solar installation located on Worsley Road

may generate glare capable of being seen during afternoon hours by a limited number of residents located on elevated terrain to the west of SR-62 and south of Seeley Road.

4.1.2 Relevant Plans, Policies, and Ordinances

Federal

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

According to Chapter 2, Structures to be Marked and Lighted, of FAA Advisory Circular AC 70/7460-1L – including Change 2, temporary or permanent structures that exceed an overall height of 200 feet above ground level should typically be marked and/or lighted (FAA 2018). Preparation of an FAA aeronautical study may reveal that the absence of marking and/or lighting would not impair aviation safety (in these instances, marking and/or lighting would not be required), but wind turbines and meteorological towers that exceed an overall height of 200 feet above ground level are typically required to be marked or lighted. While the advisory circular mentions that marking and/or lighting may be employed to achieve consistency with FAA requirements, lighting is more commonplace than marking in the current wind turbine development landscape.

Chapter 4 of the advisory circular 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 administers the California 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 California 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 Scenic Highway Program, and care must be taken to preserve its eligibility status.

An officially designated scenic highway and an eligible state scenic highway are located in the Project area. SR-62 (from I-10 north to the San Bernardino County line) is an officially designated

state scenic highway and is located as close as 0.70 miles to the Project site (Caltrans 2018b). From I-10 near Whitewater to SR-74 near Palm Desert, SR-111 is an eligible state scenic highway that is located as close as 3.5 miles from the Project site.

Local

City of Desert Hot Springs

City of Desert Hot Springs General Plan

The City's General Plan was developed to guide the future land use and development patterns within the City's planning area, which includes lands contained in the City boundary and unincorporated lands adjacent to the City's borders identified as areas likely to be serviced or annexed by the City in the future. As discussed in the General Plan, policies pertaining to aesthetics are addressed in the Land Use Element, Energy and Mineral Resources Element, and Community Design Element of the General Plan. Policies associated with aesthetics are presented as follows (City of Desert Hot Springs 2000):

Land Use Element

The Land Use Element provides a comprehensive plan of the general allocation and distribution of land uses throughout the City. In addition, the Land Use element identifies areas planned for commercial and industrial uses, and areas of existing and planned public and quasi-public uses. Relevant policies and goals of the Land Use Element are listed as follows:

Policy 1: Provide adequate and appropriate lands designated for industrial uses to provide a broad range of industrial development.

Goal 2: A land use pattern which preserves the City's resort residential atmosphere, including scenic resources such as hillside and mountain vistas, waterways, and native desert communities.

Energy and Mineral Resources Element

According to the General Plan, the City has substantial renewable energy resources including abundant sunshine and the San Gorgonio Wind Resource Area that extends into the City and its sphere of influence (City of Desert Hot Springs 2000). Further, the Energy and Mineral Resources Element states that approximately 160 acres of windfarm development is located in the City, and extensive windfarm development occurs in the west sphere area. Relevant policies and goals of the Energy and Mineral Resources Element are listed as follows:

Goal 1: Conservation and thoughtful management of energy sources and mineral deposits, assuring the long-term viability of limited and non-renewable resources.

Policy 5: Support public and private efforts to develop and operate alternative systems of thermal and electrical production, which take advantage of local renewable resources.

Community Design Element

The Community Design Element defines, directs, and guides coherent and satisfying patterns of development in the City and is meant to ensure that new development is balanced with the existing built and natural environments. This element helps to establish basic criteria, promote good and thoughtful design, and enhance community cohesiveness and coherence. Relevant policies and goals of the Community Design Element are listed as follows:

Goal 1: City-wide design and development which enhances the community's distinctive character as a desert-oriented resort residential community and preserves and enhances the natural scenic resources in harmony with the built environment.

Policy 10: Lighting shall be limited to the minimum height, number and intensity of fixtures needed to provide security and identification in residential, commercial and industrial development, taking every reasonable measure to preserve the community's night skies.

Policy 12: Development proposed along designated scenic highways, roadways and corridors shall be reviewed for compatibility with the natural and built environments to assure maximize viewshed protection and pedestrian and vehicular safety.

Policy 16: All grading and development proposed within scenic highway viewsheds, including hillsides, entry and focal points, shall be regulated to minimize adverse impacts to these viewsheds.

City of Desert Hot Springs Municipal Code

Wind energy conversion systems (WECS) are addressed in Section 17.16.140 of the City's Municipal Code. A conditional use permit is required for commercial WECS on lands designated Industrial. Relevant standard and development criteria applicable to WECS are listed in Section 17.16.140 (E) and are as follows (City of Desert Hot Springs 2018):

Section 17.16.140 (E). Standard and Development Criteria.

1. Height Limits.

a. No commercial WECS shall exceed 200 feet in height, measured at the top of the blade in the twelve o'clock position. Where unusual conditions warrant, a lower height limit may be imposed as a condition of a Conditional Use Permit.

b. No other building or structure shall exceed 30 feet in height, except for meteorological towers permitted by subsection (C) (2) of this section.

2. Setbacks. All commercial WECS shall meet these general setback requirements as well as the other setbacks set forth below.

a. No building or structure shall be located closer than 50 feet from any lot line.

b. No WECS shall be located closer than 1,200 feet from any residence, hotel, hospital, school, library or convalescent home unless the owner of such structure waives, in writing, the setback requirement.

c. Notwithstanding the 1,200-foot setback requirement specified above, a lesser setback may be permitted where due to factors of topography or the characteristics of the proposed WECS project, the approving entity finds that the noise, aesthetic or other environmental impacts of the project on adjacent properties will not be any more significant than if the 1,200-foot setback were applied. In the case of the replacement of WECS, pursuant to subsection (F) (3) of this section, the standard for determining whether a reduction shall be approved is whether the replacement WECS will have a substantially reduced cumulative impact on surrounding property, as compared to the existing project, and whether adhering to the 1,200-foot setback will be an unreasonable economic hardship to the applicant. Wherever a setback reduction is proposed pursuant to this subsection, the setback reduction shall be included in all notices, and, if granted, the WECS permit shall specifically state the required setback.

5. Scenic Setbacks.

a. No commercial WECS shall be located where the center of the tower is within 1,320 feet (1/4 mile) of State Highway 62.

b. No commercial WECS shall be located where the center of the tower is within 500 feet of Indian Avenue.

c. No commercial WECS shall be located where the center of the tower is within 500 feet of Interstate 10.

d. No commercial WECS shall be located where the center of the tower is within 1.25 times the total WECS height from Dillon Road.

e. The setbacks specified in the subsections above shall be measured from the nearest boundary of the public right-of-way.

f. Notwithstanding the provisions of subsections (E)(5)(a) through (e) of this section, the setbacks therein specified may be reduced if the Planning Commission determines that the characteristics of the surrounding property eliminate or substantially reduce considerations of scenic value. Whenever a setback reduction is proposed pursuant to this subsection, the setback reduction shall be included in all notices regarding the Conditional Use Permit, and, if granted, the Conditional Use Permit shall specifically state the required setback.

6. Safety and Security.

   a. Fencing, or other appropriate measures, shall be required to prevent unauthorized access to the WECS or WECS array.

4.1.3 Thresholds of Significance

Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.) provides guidance for evaluating whether a development project may result in significant impacts. Based on Appendix G of the CEQA Guidelines, the Project would have a significant impact on aesthetics if the Project would:

a) Have a substantial adverse effect on a scenic vista. (*The WECS 20 FEIR previously found this impact to be less than significant with mitigation incorporated.)*

b) Substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. (*The WECS 20 FEIR previously found this impact to be less than significant.)*

c) Substantially degrade the existing visual character or quality of the site and its surroundings. (*The WECS 20 FEIR previously found this impact to be less than significant with mitigation incorporated.)*

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. (*The WECS 20 FEIR previously found this impact to be less than significant with mitigation incorporated.)*

4.1.4 Impacts Analysis

Methodology

Scenic Vistas and Highways

Impacts to scenic vistas and highways focus on the potential for construction and/or operational activities to interrupt or obstruct existing views to scenic features. For purposes of this analysis,

scenic vistas include views from formally designated scenic locations including scenic highways, roads, or overlooks. In addition, consideration of scenic vistas includes informal long and broad views that include scenic landforms or water features such as mountains and hills or ocean, lakes, rivers, and waterfalls. Scenic vista locations are identified, and at each location (i.e., highway, road, trail), the visibility of Project activities and features is described and potential for view blockage is evaluated. Factors considered in determining view blockage potential include distance, angle of observation, duration of Project visibility, scale of existing and proposed features, and presence of intervening features. Scenic highways are those facilities that are formally designated as such by the California legislature. In addition to changes to existing views, potential impacts to scenic highways include Project-related damage to scenic resources including trees, rock outcroppings, and historic buildings within a state scenic highway.

Visual Character

This visual resource analysis focuses on visual resources, viewer groups, and views that could be potentially affected by construction and operation of the Project. Because CEQA has no established guidelines for conducting visual resource inventories, the methodology used in this study is based on the process established by the BLM Visual Resource Management (VRM) System. Visual impacts and changes to the existing character of the landscape are described in terms of visual contrast. As described in the BLM's Handbook H-8431-1, Visual Resource Contrast Rating, the VRM System analysis stage involves comparing Project features (i.e., landform, vegetation, and structures) in the existing landscape using the basic design elements of form, line, color, and texture (BLM 1986). More specifically, at each sensitive viewing location for the identified viewer groups, visual change is described and assessed and the anticipated degree of contrast (i.e., none, weak, moderate, and strong) is disclosed. The following general criteria are used by the BLM when rating the degree of contrast:

- None: The element contrast is not visible or perceived.
- Weak: The element contrast can be seen but does not attract attention.
- Moderate: The element contrast begins to attract attention and begins to dominate the characteristic landscape.
- Strong: The element contrast demands attention, will not be overlooked, and is dominant in the landscape.

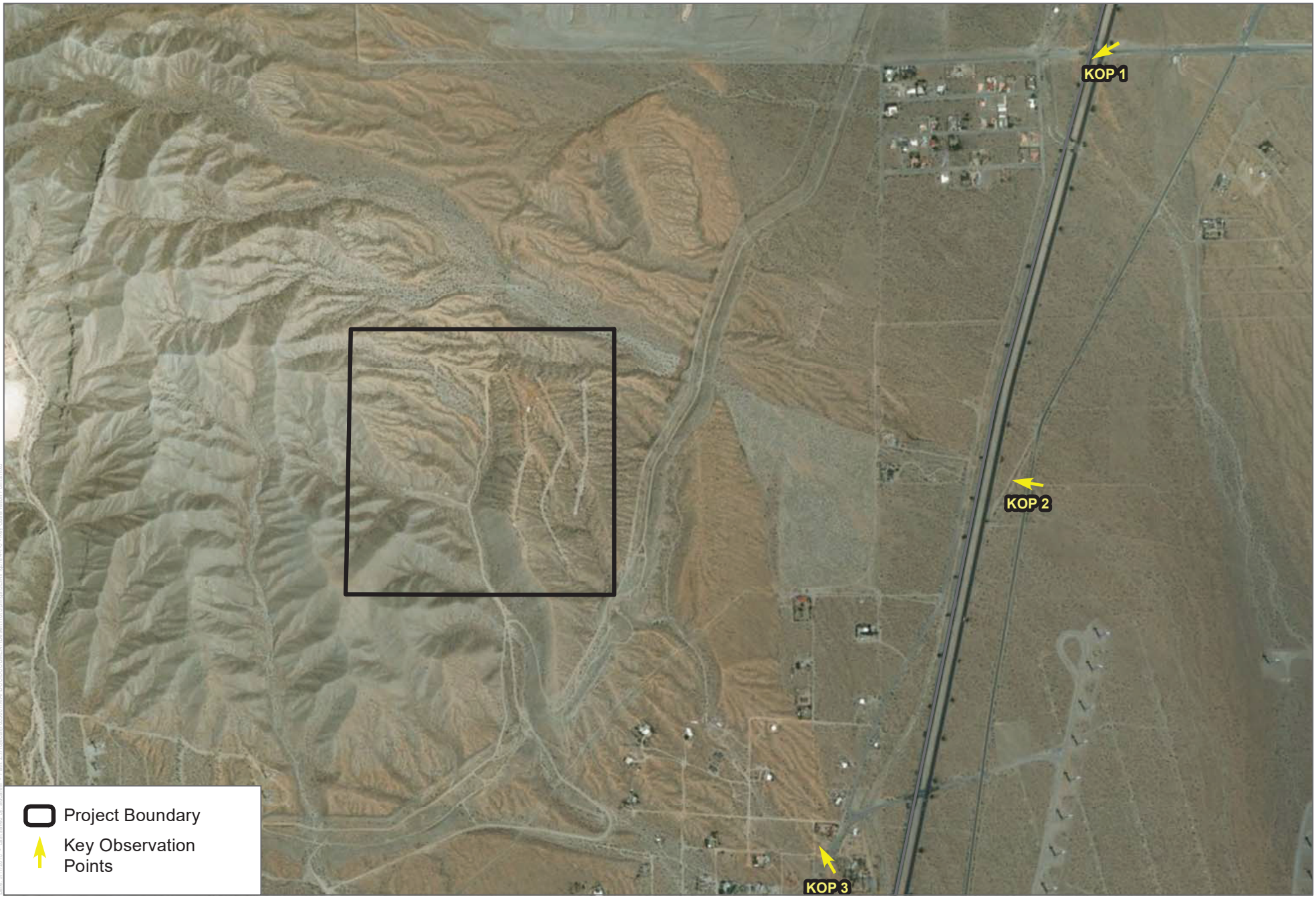
Consistent with the BLM's VRM System, factors considered in determining degree of contrast include distance, angle of observation, view exposure, relative size or scale, and spatial relationships.

Photographic Simulations

Photographic simulations that depict the Project and potential visual change to the landscape were created from three key observation points (KOPs). The simulations were used to illustrate the level of contrast associated with implementation of the Project and help determine the significance of anticipated visual change. The simulations include existing site photographs as background images and true-scale 3-D models for the proposed wind turbines rendered onto the existing photographs. The photographs were taken during a January 2018 field visit. The selection of KOPs was conducted by Dudek following the field visit. KOPs include the following three locations:

- KOP 1: Pierson Boulevard (also approximates views from SR-62)
- KOP 2: Worsley Road (also approximates views from SR-62)
- KOP 3: Old Morongo Road (also approximates views from nearby residential uses)

The location of the three KOPs is illustrated on Figure 4.1-5.



SOURCE: DigitalGlobe 2016

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0 650 1,300 Feet

FIGURE 4.1-5

Key Observation Points

Desert Hot Springs Wind Energy Repowering Project

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Light and Glare

Existing sources of light and glare in the Project area were identified during a January 2018 field visit and are described in Section 4.1.1.5 above. Construction and operational sources of lighting and glare are identified in Section 4.1.4 below, and the degree of contrast between existing and proposed is described. In addition, the evaluation considers whether lighting and glare associated with the Project would distract drivers on local roads in the Project area.

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

Short-Term Construction Impacts

Scenic views of the Coachella Valley and surrounding mountainous terrain in the Project area are available from highways and roads including SR-62, Old Morongo Road, Worsley Road, Pierson Boulevard, and Dillon Road. In addition, scenic and superior angle views of the Coachella Valley landscape are available from the Sand to Snow National Monument and, more specifically, the ridgeline segment of the Canyon View Loop trail in the Whitewater Preserve and a mountainous segment of the Pacific Crest National Scenic Trail located west of the Canyon View Loop Trail. In addition, superior angle views of the Coachella Valley are available from the Palm Springs Aerial Tramway Mountain Station observation deck and Mount San Jacinto State Park.

Decommissioning and Removal of Existing Wind Turbines and Installation of New Turbines

During existing wind turbine decommissioning, tall cranes would be located on the Project site and used to disassemble existing wind turbines and lift and install tower sections and other components associated with new wind turbines. Cranes and associated ancillary components would be visible from nearby roads, including those aforementioned roadways, nearby federal lands, and Mount San Jacinto State Park. The number of cranes located on site would vary by construction phase. For example, two cranes would be on site during decommissioning of existing wind turbines and up to four cranes would be on site during installation of new wind turbines. Less conspicuous construction equipment including tractors/backhoes, rubber tire dozers, graders, excavators, forklifts, and rollers would be visible from regional and local roads in the area during decommissioning and construction.

Construction equipment and vehicles would also be clearly visible to motorists on roads in the immediate area. From more distant roadways, including Dillon Road, construction equipment and vehicles would be visible but less pronounced due to distance (Dillon Road is located 1.5 miles away from the Project site) and intervening wind turbine developments. Similarly, cranes would be visible to recreationists at the Palm Springs Aerial Tramway Mountain Station observation deck and peaks in Mount San Jacinto State Park, but would not be visually prominent and would not block or interrupt views of the Coachella Valley. Lastly, intervening mountain terrain would

block cranes from view of recreationists on the Canyon View Loop Trail or Pacific Crest National Scenic Trail. As previously stated, these trails are situated over three miles to the northwest of the Project site.

The presence of construction equipment and workers on the Project site would be temporary. Movement associated with construction equipment and vehicles would be noticeable but not distracting, and the vertical-to-diagonal lines displayed by cranes (no more than four cranes would be on site during the various phases of construction) would not block or substantially interrupt scenic features from view of motorists on nearby roads. Sixty-nine existing wind turbines would be removed from the Project site and the duration of view interruption caused by up to four tall cranes would be brief. For example, upon passing the Project site, clear views to the San Bernardino Mountains would be quickly restored to northbound motorists on SR-62. Given the brief duration of interrupted views and the presence of existing wind turbines and other vertical features that clutter the Painted Hills landscape and occasionally interrupt views of San Gorgonio Mountain from SR-62, Old Morongo Road, Worsley Road, and Dillon Road, view impacts during construction would be less than significant.

From westbound Pierson Boulevard on the approach towards SR-62, the Project site, San Jacinto Peak, and San Gorgonio Mountain are visible. Existing wind turbines on the Project site are not located in line with San Jacinto Peak or the San Gorgonio Mountain and therefore, existing wind turbines do not obstruct the mountain peaks from view. Typical construction equipment and cranes would be visible from westbound Pierson Boulevard near SR-62; however, similar to existing wind turbines, these elements would not substantially interrupt or obstruct existing views. Construction equipment and activities would be located approximately one mile away from motorists near SR-62 and would be viewed against the dark mountain terrain. Due to distance, these elements would not be visually prominent. Construction equipment and activity would be visible but would remain subordinate to the tall, rugged mountains present in the view. Therefore, view impacts would be less than significant.

At the intersection of Dillon Road and Worsley Road, motorists are currently exposed to views of solar and wind turbine development in the foreground distance zone. During construction, cranes and other construction equipment on the Project site (located over 1.5 miles away) would not be visually prominent and would not dominate views. The tall form and line displayed by cranes would occasionally be viewed in line with distant San Gorgonio Mountain; however, the duration of crane-related view obstruction would be brief and would be comparable to view obstruction caused by existing wind turbines installed to the north of Dillon Road. The presence of cranes and other equipment on the Project site would be viewed briefly by motorists, and construction activities would not substantially screen mountain terrain from view. Impacts would be less than significant.

The Project site is visible from the Palm Springs Aerial Tramway Mountain Station observation deck and prominent peaks within Mount San Jacinto State Park. Due to distance, construction activities would not be readily apparent from the observation deck or prominent peaks in the state park. In addition, removal of the existing wind turbines and installation of the new wind turbines and ancillary components on the Project site would not substantially affect the expansive views available from the observation deck and prominent peaks that are located at a substantially higher elevation (over 7,000 feet higher) than the Project site. Therefore, impacts would be less than significant.

Construction activities on the Project site would be blocked from view of trail-based recreationists in the Sand to Snow National Monument (i.e., users of the Canyon View Loop Trail and Pacific Crest National Scenic Trail) by intervening mountain terrain. Therefore, no scenic vista impacts would occur to recreationists on the nearby trail segments within the Sand to Snow National Monument boundary.

Other Project Components and Construction Activities

In addition to the installation of wind turbines, the Project would entail the removal of existing wind turbines; construction of temporary and permanent access roads between turbines, as well as improvements to existing private roadways to accommodate construction and delivery of equipment; construction of a temporary laydown and parking area; installation of a collection line that would interconnect to the existing SCE Venwind Substation either overhead or underground; and installation of one new temporary and one new permanent meteorological tower (each up to 309 feet tall).

Wind turbine removal and the construction of temporary and permanent access roads would include (among other tasks) grading of previously undisturbed terrain. As the Project site encompasses mountain terrain, visible lines on slopes and ridgelines would be noticeable to local receptors. Depending on proximity to the site and the prominence of lines created by grading activities, construction may create additional visual disturbances that interrupt and detract from existing scenic views. Impacts would be potentially significant. Therefore, Mitigation Measure (MM) AES-2 would be implemented and would require that all Project grading comply with City regulations, which includes reducing the visual impacts of grading and occurrences of land alterations. MM-AES-3 would also be implemented and would require the remediation and replanting of existing wind turbine areas with plant material native to the Coachella Valley. Replanting decommissioned wind turbine areas would screen and reclaim land subject to previous alterations, and would increase the renaturalization and integrity of the Project site through a reduction in visible line and color contrast. With implementation of MM-AES-2 and MM-AES-3, view impacts resulting from grading activities and existing wind turbine decommissioning would be reduced to less-than-significant levels.

Two cranes would be utilized to remove the 69 existing wind turbines from the Project site during the approximately three-week-long turbine decommissioning phase. As wind turbines are disassembled, components would be temporarily stored on the Project site and then hauled off site for reuse, recycling, or disposal. Components (blades, nacelles, and tower sections) would be stored away from slopes and ridgelines to minimize visibility of these features once disassembled. Components would be temporarily stored on site for up to a few days prior to these components being further broken down/dismantled on site for off-site hauling. In accordance with MM-AES-4, decommissioned wind turbine components would not be permanently stored on site. As components would be located away from visually prominent locations and would be stored on site for a short period of time, scenic vista effects associated with storage and hauling of decommissioned components would be less than significant.

Permanent internal access and maintenance roads would be constructed to provide access and circulation within the Project. These access roads would consist of approximately 16-foot-wide permanent roads to provide access to each wind turbine and ancillary equipment. These same permanent access roads would be used during construction, although they may temporarily increase in width to accommodate cranes and larger construction equipment. Given the presence of existing access roads on the Project site and because access roads would follow the alignment of existing access roads, and with implementation of MM-AES-2, scenic vista impacts would be less than significant.

An approximately two-acre off-site temporary laydown and staging area would be used for construction parking and as a temporary laydown yard to stage and store wind turbine components, construction equipment, and construction materials. Steel construction containers would be used to securely store specialized equipment. This area would be located strategically within the Project site to optimize construction activities while also minimizing off-site visual impacts. After construction, all temporary disturbances and construction containers associated with the temporary laydown and parking area would be removed, and these areas would be restored to their current condition.

The Project also includes the construction of a new collection line that may be constructed either overhead or underground. As proposed, the collection line would parallel an existing ridgeline access road and would connect the proposed wind turbines to one another. Wood poles associated with the overhead collection line would be regularly spaced and would be visually submissive to wind turbines, existing transmission towers, and poles in the landscape. If constructed underground, the approximately 0.40-mile-long collection line would be installed in a trench (two trenchers would be used during construction) and backfilled once installed. The underground collection line would interconnect to an existing overhead collection line located approximately 400 feet west of the northernmost proposed wind turbine on the Project site. Where the alignment deviates from existing roads, collection line trenching would produce an additional lightly colored

line on the ground plane that, in the context of existing roads and wind development in the Painted Hills area, would not be visually prominent and would not attract the attention of viewers in the area. The ground plane discoloration effects of trenching would not obstruct mountains from view. The wood poles and horizontal lines of the overhead collection line would be visible against mountain backdrops, but these regularly spaced thin vertical and horizontal features would not obstruct mountains from view; therefore, scenic vista impacts associated with the collection line would be less than significant.

The temporary meteorological tower would consist of a guyed-lattice tower constructed atop an approximately six-foot by six-foot square, subterranean, temporary concrete foundation. It would be installed at one of the four proposed wind turbine locations after the site has been graded but prior to the erection of the wind turbine. The meteorological tower would be affixed with FAA obstruction lighting and would be present on the Project site for approximately six months. The temporary tower would display a thin vertical line that would not substantially obstruct or interrupt views towards scenic features in the landscape. Impacts would be less than significant.

Decommissioning and removal of existing wind turbines and construction of the Project would not substantially interrupt or obstruct existing scenic views available from SR-62, Old Morongo Road, Worsley Road, Pierson Boulevard, Dillon Road, the Sand to Snow National Monument (including the Canyon View Loop trail and Pacific Crest National Scenic Trail), the Palm Springs Aerial Tramway Mountain Station observation deck, and peaks in Mount San Jacinto State Park. Impacts would be less than significant with implementation of MM-AES-2 and MM-AES-3.

Long-Term Operational Impacts

Four new turbines (approximately 493 feet tall each as measured from ground to extended blade tip in the 12 o'clock position) would be installed in a linear north–south row atop a ridgeline in the eastern portion of the Project site. To reduce color contrast and enhance compatibility with existing wind turbines in the Painted Hills area, new wind turbines would be painted white with a matte or galvanized finished and no advertising signs or logos would be permitted on wind turbines (see MM-AES-1 and MM-AES-6. The four new wind turbines would be noticeably taller than the existing 69 wind turbines currently located on the Project site. The increased scale of proposed wind turbines would be most noticeable from the Painted Hills community and roads located to the east of the Project site including SR-62, Old Morongo Road, Pierson Boulevard, and Dillon Road. As previously stated, views to San Gorgonio Mountain and San Jacinto Peak are available from these roadways but would not be visible from nearby trails in the Sand to Snow National Monument. Lastly, proposed wind turbines would be distant but visible from the Palm Springs Aerial Tramway Mountain Station observation deck and peaks within Mount San Jacinto State Park.

While located atop a ridgeline, new turbines would display thin vertical lines and would be regularly spaced apart from one another. Due to regular and greater spacing relative to existing wind turbines (new wind turbines would be spaced 500 feet apart; existing wind turbines are spaced 85 feet apart), viewing "windows" between wind turbines to the San Gorgonio Mountain would be available in northwesterly views from SR-62 and Worsley Road. The removal of existing wind turbines would also reduce the current cluttered appearance associated with multiple rows of wind turbines on the Project site and, in general, in the Painted Hills area.

As previously described, existing wind turbines occasionally block and interrupt mountainous terrain from view and contribute repeating vertical lines to the landscape. For example, as northbound SR-62 motorists approach and pass the Project site, the bunched vertical lines displayed by existing wind turbines are present and regularly interrupt views toward San Gorgonio Mountain. Following removal of existing wind turbines from the Project site and installation of the new wind turbines and ancillary components, new turbines would attract the attention of passing motorists, and views to San Gorgonio Mountain from SR-62 and Worsley Road would be altered. However, the Project site would appear less cluttered with implementation of the Project and greater spacing between new wind turbines (relative to existing wind turbines) would allow less interrupted views toward San Gorgonio Mountain.

Wind turbines on the Project site would be in the viewshed of northbound SR-62 motorists for approximately 1.85 miles. As motorists approach and pass the Painted Hills community, existing wind turbines located on the hill situated north of I-10 and west of SR-62 interrupt westerly views towards distant mountain terrain. North of Dillon Road, westerly views to mountains are improved; however, the numerous wind turbines installed in the Painted Hills area create a busy, cluttered view. While new wind turbines would be larger and more noticeable than existing wind turbines, similar to existing wind turbines, new wind turbines would be viewed in line with background mountains and would interrupt views to these landscape features. In addition, view interruption associated with the Project would be brief, and due to distance between the state route and Project site (approximately 0.70 miles at its nearest location) and greater spacing between wind turbines, the Project would not substantially screen mountains from view. The ridgeline of distant mountains would continue to be visible and characterize west-oriented views from SR-62. Therefore, impacts to scenic vistas and views from north bound SR-62 would be less than significant.

New wind turbines would be visible from Old Morongo Road and Pierson Boulevard. Between the western terminus of Old Morongo Road/Painted Hills Road and Desert View Road (a distance of approximately 0.90 miles) the mountain slopes of the Project site and elevated terrain to the west block San Gorgonio Mountain from view of Old Morongo Road motorists. East of Desert View Road, the Project site is located to the northwest of motorists and new wind turbines would not be viewed in line with distant terrain of San Gorgonio Mountain. At its intersection with SR-62, westbound Pierson

Boulevard offers a clear and generally unobstructed view to San Jacinto Peak and foothills of the San Jacinto mountains. The four proposed wind turbines atop a ridgeline on the Project site approximately 1.3 miles away would be clearly visible to westbound motorists. However, the southernmost wind turbine would be viewed entirely against dark mountain terrain and the remaining three wind turbines would not generally be viewed in line with terrain of the San Jacinto Mountains. With implementation of the Project, wind turbines and the meteorological tower would be noticeable and attract attention, but San Jacinto Peak would remain visually prominent in the view. In addition, San Jacinto Peak would not be obscured or substantially interrupted by project features. Therefore, impacts to scenic vistas and views from Old Morongo Road and Pierson Boulevard would be less than significant.

The dark ridgelines of the San Bernardino Mountains are visible to westbound Dillon Road motorists on the approach to Worsley Road and SR-62. Mountain ridgelines are a constant feature in views and the low vertical lines displayed by existing wind turbines on the Project site are briefly viewed in line with the distant terrain of the San Bernardino Mountains. Proposed wind turbines would also be viewed in line with distant mountain ridgelines, but would not obstruct or otherwise screen prominent terrain (i.e., San Gorgonio Mountain) from view. At Worsley Road, motorists on Dillon Road would be located approximately 1.75 miles from the nearest proposed wind turbine on the Project site. Due to the setback of Dillon Road from the Project site, the brief duration of the available view provided to westbound motorists, and the availability of view "windows" between proposed wind turbines that would be spaced over 500 feet apart from one another, impacts to scenic views from Dillon Road towards the Project site would be less than significant.

Despite their proposed large scale, new wind turbines on the Project site would not be visible from either the Canyon View Loop Trail or Pacific Crest National Scenic Trail in the Sand to Snow National Monument. Intervening (and taller) mountain terrain between the trails and Project site, and the lower elevation of the Project site relative to terrain east of the Whitewater River, would block new wind turbines from view of recreationists on nearby formal trails within the boundary of the national monument. Views to new wind turbines would be available from higher elevation slopes and ridgelines in the national monument; however, these areas are not publicly accessible from formal/designated trails and receive little (if any) use by local recreationists. Therefore, impacts would be less than significant.

Existing views of San Jacinto Peak from southbound SR-62 and Worsley Road would not be substantially affected during Project operations. The Project site is not central in views to San Jacinto Peak from these roads (the Project site is peripherally located to the southwest and west, and San Jacinto Peak is located to the south) and as such, Project activities would not obstruct or substantially interrupt existing views to San Jacinto Peak. In addition, the Project site is not visible in southerly views toward San Jacinto peak from westbound Old Morongo Road, and therefore, southerly views to the peak would not be interrupted or obstructed by Project elements. Thus,

operation of the Project would not result in a substantial adverse effect on a scenic vista as experienced from southbound SR-62 and Worsley Road and westbound Old Morongo Road.

While visible, new wind turbines would be located over seven miles away from the Palm Springs Aerial Tramway Mountain Station and prominent peaks within Mount San Jacinto State Park. Due to the over 7,000-foot elevation difference between viewing locations and the Project site, new wind turbines would be viewed against the tan and brown desert terrain and in the context of existing modern wind turbines in the Painted Hills area. New turbines would not screen scenic features from view and would not substantially interrupt the broad views of the Coachella Valley and surrounding mountain ranges. Impacts would be less than significant.

In addition to the wind turbines, the Project would include installation of one new meteorological tower up to 309 feet tall. As with the temporary meteorological tower, the permanent tower would display a thin vertical line that would not substantially obstruct or interrupt views towards scenic features in the landscape including San Gorgonio Mountain and San Jacinto Peak.

Future Decommissioning Impacts

The Project lifespan would be at least 30 years. When the proposed facility is decommissioned, the four wind turbines would be removed from the Project site and the materials would be reused or sold for scrap. Decommissioning activities are anticipated to result in similar intensity of impacts as described above under the discussion pertaining to decommissioning of the existing wind turbines. For this reason, impacts associated with future decommissioning of the Project's new wind turbines would be similar, if not nearly identical, to those impacts related to decommissioning of the existing 69 wind turbines that are currently found on site.

Summary

The Project would be required to adhere to all relevant mitigation measures identified in the WECS 20 FEIR. No new or more severe long-term operational impacts associated with scenic vistas would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR (less than significant with mitigation incorporated). No new mitigation measures are required.

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

The Project would be visible from SR-62, an officially designated state scenic highway. At its closest point, SR-62 is located within 0.70 miles of the Project site. For northbound state route motorists, the Project site is generally visible between Dillon Road and approximately 0.65 miles south of Pierson Road (a distance of approximately 1.85 miles). From southbound SR-62, the

Project site is within the normal (i.e., non-peripheral) field of vision of motorists from approximately Mission Creek Road to Fairview Road (approximately 2.7 miles). Existing views from the state highway near the Project site are generally open but occasionally obstructed by tall shrubs and trees that are scattered along the corridor. Wind energy facilities in Painted Hills (including 69 existing wind turbines on the Project site) and along the I-10 corridor are visible from both north- and southbound SR-62.

Despite the visibility of the Project site from SR-62, Project activities including decommissioning of existing wind turbines would not damage scenic resources such as trees, rock outcroppings, or historic buildings. Trees, rock outcroppings, and historic buildings are not located where existing wind turbines operate or where new turbines are proposed on the Project site. While new wind turbines are proposed where existing wind turbines are installed, new wind turbines would require additional disturbance around each tower base. Due to the distance from the Project site and SR-62, and the low-angle view available to passing motorists, construction-related disturbance of low grasses and shrubs near the base of new wind turbine towers would be partially obscured in the views of state route motorists.

During removal of existing wind turbines and installation of new wind turbines, large cranes and other construction equipment and vehicles would be temporarily located on the Project site. Construction equipment on the Project site would be visible to state route motorists during daytime hours throughout the duration of construction. However, the presence of construction equipment in views from SR-62 toward the Project site would be short-term, and following construction, these elements would no longer be present in views.

Under existing conditions, the vertical lines created by the existing wind turbines occasionally interrupt views of San Gorgonio Mountain and surrounding peaks of the San Bernardino Mountains from northbound SR-62. In addition, the concentrated vertical lines of 69 wind turbines create visual clutter on the ridgelines of the Project site. As proposed, the Project would remove 69 existing wind turbines and install four modern wind turbines. While the Project would result in fewer vertical lines on the Project site and reduce visual clutter, each new wind turbine would be 493 feet tall. These features would be noticeably larger than existing wind turbines and would be clearly visible from SR-62. New wind turbines could attract attention and occasionally interrupt the views of SR-62 motorists to the San Bernardino Mountains. However, similar to existing conditions, the mountains would not be entirely screened from view by new wind turbines, the permanent meteorological tower, or other project elements. New wind turbines and the permanent meteorological tower would display tall, thin lines and increased spacing between proposed wind turbines (relative to existing wind turbines) would create viewing "windows" between wind turbines that would extend line of sight to background features (i.e., mountains).

In addition, the Project would be required to adhere to MM-AES-2 and MM-AES-3, which would entail the replanting and regrading of areas subject to land scarring during decommissioning and construction. Implementation of these mitigation measures would increase the renaturalization and integrity of the visual quality of the Project site, which would restore views of the site from SR-62 and locations in the surrounding area. In addition, MM-AES-1 would be implemented, which would require proposed wind turbines to be painted white. MM-AES-1 would ensure that proposed wind turbines are visually compatible with existing modern white turbines in the Painted Hills area. In addition, the Project would be required to adhere to MM-AES-4, MM-AES-6, and MM-AES-7, which would further minimize view impacts through a reduction of visual clutter on the Project site during operations (MM-AES-4), the prohibition of advertising signs on wind turbines from creating eyesores (MM-AES-6), and inclusion of appropriate setbacks from SR-62 to minimize scale contrast to the extent practicable (MM-AES-7). Therefore, with implementation of the mitigation measures described above, impacts pertaining to damage to scenic resources within a state scenic highway would be less than significant.

The Project would be required to adhere to all relevant mitigation measures identified in the WECS 20 FEIR. No new or more severe impacts associated with scenic highways would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR (less than significant with mitigation incorporated). No new mitigation measures are required.

c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Construction and some maintenance activities of the Project would be visible to motorists on local and regional roads, residences, and recreationists in the surrounding area. As previously stated above in thresholds a and c, implementation of the Project would entail the removal of 69 existing wind turbines; construction of temporary and permanent access roads between turbines, as well as improvements to existing private roadways to accommodate construction and delivery of equipment; construction of a temporary laydown and parking area; installation of an underground or overhead collection line that would interconnect to the existing SCE Venwind Substation; and installation of one new temporary and one new permanent meteorological tower (each up to 309 feet tall). While these activities on the Project site would be visible from locations in the surrounding area and would create noticeable form, line, and color contrasts when compared to existing conditions, the duration of contrasts would be temporary (i.e., lasting during the decommissioning and construction phases) and would cease following the decommissioning and construction phases.

In addition, mitigation measures, including MM-AES-2 and MM-AES-3, would be implemented and would reduce temporary contrasts associated with construction activities to the extent practicable. For example, MM-AES-2 and MM-AES-3 would minimize unnecessary line and color

contrasts to terrain through adherence to the City's grading regulations and restoration of wind turbine removal areas with plant material native to the Coachella Valley.

As proposed, the Project would install four new 493-foot-tall wind turbines and ancillary components in the same general locations as existing wind turbines on the Project site. Similar to existing modern wind turbines in the Painted Hills area, wind turbines would be painted white with a matte or galvanized finish (see MM-AES-1). Wind turbines would also be free of advertising signs or logos (see MM-AES-6) and appropriately set back (per City standards) from SR-62 (see MM-AES-7). Visual clutter would also be minimized through implementation of MM-AES-4, which would prohibit decommissioned wind turbine components from being stored on site during Project operations. While the Project would result in fewer wind turbines on the Project site and reduced visual clutter, new wind turbines would be noticeably taller than the existing wind turbines.

Existing photographs of the Project site and 3-D photosimulations of the Project as viewed from Pierson Boulevard at SR-62, Old Morongo Road, and Worsley Road are included as Figures 4.1-6A, 4.1-6B, 4.1-7A, 4.1-7B, 4.1-8A, and 4.1-8B. As illustrated in the photosimulations, new wind turbines would be noticeably taller than the existing wind turbines and would be perched above the Painted Hills community due to the ridgeline location of the Project site. Proposed wind turbines would be clearly visible from SR-62, Old Morongo Road, and local roads throughout the area and would display a stronger line and more distinct typical y-shaped massing relative to existing wind turbines that, depending on proximity and angle of view, can be difficult to detect when viewed against dark mountain terrain (see Figure 4.1-6A and Figure 4.1-6B). Further, due to taller tower segments and longer blades, the white color of proposed wind turbines would stand out in views as compared to the greyish tones displayed by existing wind turbines (see Figure 4.1-7A and Figure 4.1-7B). Similar levels of contrasts would also be experienced from Old Morongo Road (see Figure 4.1-8A and Figure 4.1-8B).

Despite the increase in height and resulting form and scale contrast relative to existing wind turbines, as well as increased noticeability and perceptible color contrasts, the new turbines would display similar form, line and color as existing off-site wind turbines located to the south and east of the Project site. As previously stated, modern wind turbines are widely distributed throughout the western Coachella Valley and several wind turbines to the south of the Project site (and within the SR-62 viewshed) are installed atop higher elevation hilly terrain (see Figures 4.1-6A and 4.1-6B). In addition, the new wind turbines would be installed at the same location (or immediately nearby) as existing wind turbines on the Project site. Further, the Project would reduce the existing visual clutter associated with the overlapping vertical lines of the 69 existing wind turbines on the Project site (these effects are most noticeable from viewpoints located to the west and southeast of the Project site; see Figures 4.1-7A, 4.1-7B, 4.1-8A, and 4.1-8B).

While proposed wind turbines would be noticeably taller than existing aged wind turbines on the Project site and the increased height would attract the attention of viewers in the area, new wind turbines would be viewed in the context of existing wind turbine development that is widely distributed in the western Coachella Valley landscape including the Painted Hills area. Proposed wind turbines would be located atop ridgeline terrain; however, the general familiarity with and wide distribution of wind turbine development in the Project area would temper the visual expectations of local and regional viewers. Due to the 493-foot scale of wind turbines, resulting form and line contrasts would typically be moderate to strong; however, prominent landforms in the region including San Jacinto Peak and the San Bernardino Mountains would remain the dominant features in the landscape. Furthermore, due to past development of the Project site as a commercial wind energy facility, the eastern portion of the Project site (i.e., where the existing wind turbines currently operate and where the new wind turbines would be installed) displays relatively low visual quality. Lastly, the Project site itself does not support particularly unique or distinct landforms, and on-site vegetation is typical of vegetation on properties along the SR-62 corridor.

In addition to wind turbines, the Project would include new roads and ancillary components, including a new underground or overhead electric collection line (or use of an existing line, or combination thereof) between the Project site and an off-site substation, and two meteorological towers (one temporary and one permanent). As detailed in the Project Description (Chapter 3 of this Draft SEIR), the existing network of permanent access roads would be retained and reused for the new wind turbines and new permanent access and maintenance roads (up to 16 feet wide) would be constructed to provide access and circulation within the Project. These features will be constructed (similar to existing access roads) to follow the contours of the on-site terrain.

As shown on Figures 4.1-8A and 4.1-8B, existing access roads servicing existing wind turbines are difficult to detect in views primarily due to the elevated nature of the Project site and the low viewing angle to the Project site available to receptors in the surrounding area. As new roads would not be aligned in a perpendicular manner with on-site terrain, anticipated line and color contrasts would be weak. Also, the addition of a new overhead electrical collection line on the Project site of similar scale and character to the distribution line visible in the foreground of KOP 3 (see Figure 4.1-8A) would generally produce weak form, line, and color contrast that would be visually subordinate to taller wind turbines on site. The permanent meteorological tower would display a tall, yet thin, and lightly colored line that would be visible from the three identified KOPs. As illustrated on Figures 4.1-6B, 4.1-7B, and 4.1-8B, the permanent meteorological tower would not command attention or substantially impact existing visual quality of the site.

SOURCE: Dudek 2018

FIGURE 4.1-6A

Key Observation Point 1: Pierson Boulevard

Desert Hot Springs Wind Energy Repowering Project

DUDEK

INTENTIONALLY LEFT BLANK

Visual simulation of Project

SOURCE: Dudek 2018

FIGURE 4.1-6B

Key Observation Point 1: Pierson Boulevard

Desert Hot Springs Wind Energy Repowering Project

DUDEK

INTENTIONALLY LEFT BLANK

SOURCE: Dudek 2018

FIGURE 4.1-7A

Key Observation Point 2: Worsley Road

Desert Hot Springs Wind Energy Repowering Project

DUDEK

INTENTIONALLY LEFT BLANK

Visual simulation of Project

SOURCE: Dudek 2018

FIGURE 4.1-7B

Key Observation Point 2: Worsley Road

Desert Hot Springs Wind Energy Repowering Project

DUDEK

INTENTIONALLY LEFT BLANK

SOURCE: Dudek 2018

FIGURE 4.1-8A

Key Observation Point 3: Old Morongo Road

Desert Hot Springs Wind Energy Repowering Project

DUDEK

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Visual simulation of Project

SOURCE: Dudek 2018

FIGURE 4.1-8B

Key Observation Point 3: Old Morongo Road

Desert Hot Springs Wind Energy Repowering Project

DUDEK

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The Project would also be required to adhere to MM-AES-1 through MM-AES-4, MM-AES-6, and MM-AES-7. As described above, implementation of these mitigation measures would reduce short- and long-term impacts to existing visual character and quality of the site and surrounding area to a less-than-significant level.

The Project would be required to adhere to all relevant mitigation measures identified in the WECS 20 FEIR. No new or more severe impacts associated with visual character or quality would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR (less than significant with mitigation incorporated). Therefore, no new mitigation measures are required.

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

The Project's permanent meteorological tower, temporary meteorological tower,[1] and one or more wind turbines would be required to install FAA obstruction lighting. No other permanent nighttime lighting sources would operate on the Project site during operations. Typically required by the FAA for structures over 200 feet tall, obstruction lighting on the Project site would operate during evening and nighttime hours and would likely consist of one or two slowly blinking red lights near the top of each meteorological tower and atop the nacelle of one or more of the wind turbines. The number of lights to be installed would be determined by the FAA. Obstruction lights would alert aircraft pilots to the presence of the meteorological tower and wind turbines on the Project site. FAA obstruction lights would represent increased color contrast when compared to existing conditions, as obstruction lighting is not installed on the 69 aged wind turbines currently located on the Project site. Other than lighting associated with the temporary meteorological tower (this component would gather data for approximately six months and then be disassembled and removed from the Project site), permanent obstruction lights would be a regular source of nighttime lighting in the area that could be seen by nearby residential properties (the closest of which is located approximately 0.40 miles from the southernmost proposed wind turbine), local roads, and SR-62.

While obstruction lighting would operate near residential uses, roads, and SR-62, wind turbine development is prevalent in Painted Hills, along the southern segment of the SR-62 corridor, and along the I-10 corridor. For example, existing modern wind turbines to the south of the Project site are located 0.25 miles from the nearest residence on Vernon Road. Further, the nearest home to the Project site (located off Scenic Drive) is located 0.70 miles from the nearest existing modern

[1] The temporary meteorological tower would be installed at one of the four turbine sites prior to construction of the wind turbines. It would be used to obtain wind data for site calibration related to the power curve testing process for the wind turbines. Although this meteorological tower may require FAA obstruction lighting, it will only be installed for a short period of time and would be dismantled and removed prior to turbine erection.

wind turbine featuring FAA obstruction lighting. These sources of nighttime lighting operate in the area and are visible from residences and roads during evening and nighttime hours.

While obstruction lighting is not installed on existing wind turbines, modern wind turbine development is located atop ridgeline terrain approximately 1.2 miles to the south of the Project site and west of Marion Avenue. Obstruction lighting in this area and other obstruction lighting on wind turbine development in the immediate surrounding area contributes regular (and familiar) lighting to the nighttime environment. Because residents and motorists are currently exposed to blinking red lights during evening and night hours, the introduction of obstruction lighting to the Project site would not significantly impact nighttime views such that motorists would be distracted and unsafe driving conditions would occur. Further, local residents and drivers are accustomed to the presence of modern wind turbine development in the Project area. For example, tall and modern wind turbines characterize the western Coachella Valley floor and, more specifically, the I-10 corridor between Whitewater River and North Indian Canyon Drive (a distance of approximately 5.3 miles). In addition, modern wind turbines are installed north of I-10 and east and west of the SR-62 corridor, and there is no evidence that turbine lighting causes driver distraction.

Because existing modern wind turbine development near the Project site and the surrounding community includes wind turbines with FAA-required obstruction lights, the addition of obstruction lighting on new wind turbines and one new permanent meteorological tower on the Project site would not represent a unique, previously unrepresented source of nighttime lighting. In addition, the Project would adhere to City wind energy conversion system requirements regarding setbacks from residential structures and SR-62. As previously stated, wind turbines would be setback approximately 0.40 miles from the nearest residential property and over 0.80 miles from SR-62 (the Project site itself is located 0.70 miles from SR-62). Therefore, due to the prevalence of existing wind turbine development with FAA obstruction lighting in the Project area, and through adherence to the City's wind energy conversion system requirements regarding setbacks from residential structures and SR-62, the addition of FAA obstruction lights to approximately three new structures in the Project area would not significantly adversely affect existing nighttime views.

Support poles associated with the new overhead electric line that would run from the Project site to an existing off-site substation and the two meteorological towers that would be installed on the Project site would be constructed of metallic materials that would include a matte finish. The inclusion of matte finishes on metallic features would reduce the potential for high reflectivity of materials and receipt of Project-generated glare in the surrounding area. With incorporation of reflectivity reducing finishes, support poles and meteorological towers would not produce substantial glare that would adversely affect daytime views in the Project area.

The Project would be required to adhere to all relevant mitigation measures identified in the WECS 20 FEIR. No new or more severe impacts associated with light and glare would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR (less than significant with mitigation incorporated). Therefore, no new mitigation measures are required.

4.1.5 Cumulative Impacts

The geographic scope of the cumulative aesthetics analysis is the portion(s) of the western Coachella Valley landscape within the viewshed of the Project site.

As previously discussed, numerous different types of manmade modifications are found in the broader Project area, including commercial wind energy development. Existing commercial wind energy facilities are located east and west of the SR-62 corridor and north and south of the I-10 corridor in western Coachella Valley. According to the U.S. Geological Survey's U.S. Wind Turbine Database, nearly 3,000 individual wind turbines are listed as operational throughout the Coachella Valley region (USGS 2018).

Collectively, the Project would be visually indistinct from other wind turbine development in the surrounding area and would not obstruct or substantially interrupt or degrade existing views. The new wind turbines would display an overall similar form and line as existing and future wind turbines in the immediate and broader area. The new wind turbines on the Project site, which are replacing 69 existing wind turbines, would not represent a significant or disproportionate visual element in the overall regional viewshed. Therefore, impacts associated with aesthetics would not be cumulatively considerable.

4.1.6 Mitigation Measures

The Project would be required to comply with the following applicable aesthetics mitigation measures adopted by the City of Desert Hot Springs as part of the WECS 20 FEIR, as revised. Where necessary, minor refinements to the WECS 20 FEIR's mitigation measures are recommended to better tailor the existing mitigation measures to the current Project; text changes are shown in underline (additional text) and ~~strikethrough~~ (removed text). Where text amendments are suggested, a brief reason as to why the change is being request is provided:

MM-AES-1 The ~~eight~~ wind turbines would be painted white, with a matte or galvanized finish. ~~The storage building would be painted in an earth-tone, such as beige.~~

Reason for Text Amendment to the Mitigation Measure: The Project includes four, and not eight, new wind turbines and will not have a storage building.

MM-AES-2 All Project grading will comply with the City's regulations in order to minimize adverse impacts to viewsheds.

MM-AES-3 Upon removal of the ~~16 Bonus~~ wind turbines, the area where each individual ~~Bonus~~ wind turbine was located shall be remediated ~~remedied~~. The site shall be evaluated and any soil contamination shall be removed; structural foundations to be excavated to accommodate Project turbines ~~(cutting to six feet below grade)~~ and all manmade debris shall be removed from the site; and the area shall be replanted with plant material native to the Coachella Valley. Monitoring of all such activities shall be undertaken by a qualified biological monitor, who shall file a written report of findings to the City upon completion of the site remediation as outlined above.

Reason for Text Amendment to the Mitigation Measure: The Project is requesting to decommission all of the existing on-site wind turbines from the Project site, not just the 16 Bonus wind turbines. Existing foundations not impacted by the construction of the Project turbines shall remain in place. In addition, removal of foundations to six feet below grade is not necessary to address aesthetic impacts.

MM-AES-4 ~~During ongoing operation and maintenance of the Project, only surplus turbine parts too large to be stored in the storage building would be stored in the open storage area. Prior to storing any additional items in the open storage area which are not large turbine parts, a list of said items would be submitted in writing to the City for approval.~~ Decommissioned wind turbines, including inoperable or wrecked machinery, motor vehicles, construction equipment, and construction debris will not be stored on site.

Reason for Text Amendment to the Mitigation Measure: The Project will have neither an open storage area nor a storage building.

MM-AES-5 ~~The outdoor storage area shall be annually inspected by the City.~~

Reason for Text Amendment to the Mitigation Measure: The Project will not have an outdoor storage area.

MM-AES-6 No advertising sign or logo shall be placed or painted on any commercial WECS.

MM-AES-7 No commercial WECS shall be located where the center of the tower is within 1,320 feet (0.25 miles) of State Route 62.

~~**MM-AES-8** All aspects of the Project's development shall adhere to Wind Energy Conversion Systems (WECS) requirements as adopted in Section 159.08.030(2)(J) of the City's Municipal Zoning Ordinance.~~

Reason for Text Amendment to the Mitigation Measure: The Project Applicant has requested a Variance to allow for the design of the Project to deviate from select development standards, including but not limited to height restriction, set forth in the Desert Hot Spring Zoning Ordinance for the I-E zone. As previously discussed, even with approval of the requested Variance, the Project will result in less-than-significant impacts to aesthetics, and thus, this particular mitigation measure is unnecessary to minimize impacts.

MM-AES-9 All non-Federal Aviation Administration required lighting equipment and devices would be shielded or recessed so that direct light and glare are contained within the boundaries of the Project site, away from adjoining properties and public rights-of-way.

Reason for Text Amendment to the Mitigation Measure: Similar to all other applicable federal, state, and local regulation, the Project must adhere to FAA obstruction marking and lighting requirements.

MM-AES-10 Project development shall comply with the City's adopted outdoor lighting standards as specified in Section 17.16.140 ~~159.08.030(2)(J)~~ of the Desert Hot Springs Municipal Zoning Code.

Reason for Text Amendment to the Mitigation Measure: The City's Municipal Code has been updated, and its sections have been renumbered since certification of the WECS 20 FEIR; as such, the in-text reference to the Municipal Code section needs to be updated.

MM-AES-11 Lighting plans, excluding those required by the FAA, indicating proposed lighting levels and methods to minimize impact on adjacent properties shall be reviewed and approved by the City prior to installation. Modification, alteration, or addition to any approved lighting shall not be undertaken prior to approval by the City.

Reason for Text Amendment to the Mitigation Measure: Similar to all other applicable federal, state, and local regulation, the Project must adhere to FAA obstruction marking and lighting requirements.

4.1.7 Level of Significance After Mitigation

With the incorporation of all applicable mitigation measures identified in the WECS 20 FEIR, no new or more severe impacts associated with aesthetics would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR. No new mitigation measures are required.

4.1.8 References

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4.2 AIR QUALITY

This section describes the existing air quality resources and setting within the Project area, identifies applicable regulatory requirements, evaluates potential impacts compared to the impacts identified in the WECS 20 Permit Project Final Environmental Impact Report (WECS 20 FEIR), and identifies mitigation measures related to implementation of the Desert Hot Springs Wind Energy Repowering Project (Project).

In addition to the documents incorporated by reference (see Section 2.8 of Chapter 2, Introduction, of this Draft Supplemental Environmental Impact Report [Draft SEIR]), the following analysis is based on the following source, which is found in Appendix D of this Draft SEIR:

- April 2019 Air Quality and Greenhouse Gas Emissions Analysis Technical Report for the Desert Hot Springs Wind Energy Repowering Project prepared by Dudek

4.2.1 Existing Conditions

The Project site is located within the Salton Sea Air Basin (SSAB). The Riverside County portion of the SSAB is bounded by the San Jacinto Mountains in the west and spans eastward to the Palo Verde Valley. The Coachella Valley Planning Area is a federal nonattainment area that is part of a sub-region of Riverside County in the SSAB that is bounded by the San Jacinto Mountains to the west and the eastern boundary of the Coachella Valley to the east.

Meteorological and Topographical Conditions

The SSAB includes the central portion of Riverside County (Coachella Valley) and all of Imperial County. The Riverside County portion of the SSAB is under the jurisdiction of the SCAQMD. The SSAB is generally very flat and bordered to the west by the Peninsular Mountain range and to the east by the Chocolate, Orocopia, and Cargo Muchacho Mountains. The Riverside County portion of the SSAB is bounded by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley. The federal nonattainment area (known as the Coachella Valley Planning Area) is a subregion of Riverside County and the SSAB that is bounded by the San Jacinto Mountains to the west and the eastern boundary of the Coachella Valley to the east (SCAQMD 2017).

The SSAB is a continental, desert region with a climate characterized by low annual rainfall, low humidity, hot days, and cool nights. Temperatures exceed 100°F during the summer with daily highs near 110°F during July and August. The mean temperature in the summer is 89°F, while the mean temperature in the winter is 57°F (SCAQMD 2017). Rainfall in the area varies considerably, although precipitation normally occurs November through April. A semi-permanent high-pressure zone blocks mid-latitude storms and causes sunny skies most of the

time in the SSAB. The high-pressure zone tends to be weaker in the winter, and it is during this time that the SSAB usually receives its average 2.8 inches of annual precipitation. The Peninsular Mountains to the west block coastal influence, such as cool and damp marine air that traverses inland from the Pacific Ocean. The geographic barriers and atmospheric conditions often limit the amount of precipitation for the area.

The Coachella Valley is impacted by pollutant transport from the South Coast Air Basin (SCAB). Ozone in the atmosphere of the Riverside County portion of SSAB is both directly transported from the SCAB and formed principally from ozone precursors (hydrocarbons and oxides of nitrogen (NO_x)[1]) emitted upwind. In addition, pollutant transport occurs to the Antelope Valley, Mojave Desert, Ventura County, and San Diego County. The mountains on the east side of the air basin act as physical barriers to the dispersion of airborne contaminants. The Coachella Valley is exposed to frequent gusty winds, with stronger winds tending to occur in the western portion of the valley, while lighter winds tend to occur in the east half of the valley. The pollutant transport pathway from the SCAB South Coast Air Basin to the SSAB is through the San Gorgonio Pass (sometimes referred to as the Banning Pass) to the Coachella Valley.

The City's climate is characterized by relatively low rainfall, with warm summers and mild winters. Average temperatures range from a high of 108°F in July to a low of 42°F in December. Annual precipitation averages about 5.5 inches, falling mostly from August through March (WRCC 2017).

Sunlight

The presence and intensity of sunlight are necessary prerequisites for the formation of photochemical smog. Under the influence of the ultraviolet radiation of sunlight, certain "primary" pollutants (mainly reactive hydrocarbons and NO_x) react to form "secondary" pollutants (primarily oxidants). Since this process is time dependent, secondary pollutants can be formed many miles downwind of the emission sources. Southern California has abundant sunshine, which drives the photochemical reactions that form pollutants such as ozone (O_3) and a substantial portion of fine particulate matter ($PM_{2.5}$, particles less than 2.5 microns in diameter). In the SSAB, high concentrations of O_3 are normally recorded during the late spring, summer, and early autumn months, when more intense sunlight drives enhanced photochemical reactions. Due to the prevailing daytime winds and time-delayed nature of photochemical smog, oxidant concentrations are highest in the inland areas of Southern California.

[1] NO_x is a general term pertaining to compounds of nitric oxide (NO), nitrogen dioxide (NO_2), and other oxides of nitrogen.

Temperature Inversions

Under ideal meteorological conditions and irrespective of topography, pollutants emitted into the air mix and disperse into the upper atmosphere. However, the Southern California region frequently experiences temperature inversions in which pollutants are trapped and accumulate close to the ground. The height of the inversion is important in determining pollutant concentration. When the inversion is approximately 2,500 feet above mean sea level (amsl), the sea breezes carry the pollutants inland to escape over the mountain slopes or through the passes. At a height of 1,200 feet amsl, the terrain prevents the pollutants from entering the upper atmosphere, resulting in the pollutants settling in the foothill communities. Below 1,200 feet amsl, the inversion puts a tight lid on pollutants, concentrating them in a shallow layer over the entire coastal basin. Usually, inversions are lower before sunrise than during the daylight hours.

Mixing heights for inversions are lower in the summer and inversions are more persistent, being partly responsible for the high levels of O_3 observed during summer months in the SSAB. Smog in Southern California is generally the result of these temperature inversions combining with coastal day winds and local mountains to contain the pollutants for long periods, allowing them to form secondary pollutants by reacting in the presence of sunlight. The SSAB has a limited ability to disperse these pollutants due to typically low wind speeds and the surrounding mountain ranges.

As with other cities within the SSAB, the City is susceptible to air inversions, which trap a layer of stagnant air near the ground where pollutants are further concentrated. These inversions produce haziness caused by moisture, suspended dust, and a variety of chemical aerosols emitted by trucks, automobiles, furnaces, and other sources. Elevated concentrations of particulate matter less than 10 microns in diameter (PM_{10}) and $PM_{2.5}$ can occur in the SSAB throughout the year but occur most frequently in fall and winter. Although there are some changes in emissions by day-of-week and season, the observed variations in pollutant concentrations are primarily the result of seasonal differences in weather conditions.

The Coachella Valley has elevated overnight O_3, which contributes to an early morning bump in the Coachella Valley O_3 concentrations starting around 8 a.m. Pacific standard time with the ample sunlight and strong overnight temperature inversions in the desert. O_3 concentrations in this area reach an initial peak before noon and then drop slightly with increased mixing in the early afternoon, before climbing to the daily peak as the normal onshore flow reaches the Coachella Valley through the San Gorgonio Pass, transporting new O_3 from the South Coast Air Basin (SCAQMD 2013).

Pollutants and Effects

Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The federal and state standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include O_3, nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), PM_{10}, $PM_{2.5}$, and lead. These pollutants, as well as toxic air contaminants (TACs), are discussed in the following paragraphs.[2] In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

Ozone. O_3 is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the Sun's energy and O_3 precursors. These precursors are mainly NO_x and volatile organic compounds (VOCs). The maximum effects of precursor emissions on O_3 concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in O_3 formation, and ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O_3 exists in the upper atmosphere O_3 layer (stratospheric ozone) and at the Earth's surface in the troposphere (ozone).[3] The O_3 that the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) regulate as a criteria air pollutant is produced close to the ground level, where people live, exercise, and breathe. Ground-level O_3 is a harmful air pollutant that causes numerous adverse health effects and is thus considered "bad" O_3. Stratospheric, or "good," O_3 occurs naturally in the upper atmosphere, where it reduces the amount of ultraviolet light (i.e., solar radiation) entering the Earth's atmosphere. Without the protection of the beneficial stratospheric O_3 layer, plant and animal life would be seriously harmed.

O_3 in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes (EPA 2013). These health problems are particularly acute in sensitive receptors such as the sick, the elderly, and young children.

[2] The descriptions of each of the criteria air pollutants and associated health effects are based on the U.S. Environmental Protection Agency's (EPA's) "Criteria Air Pollutants" (EPA 2016a) and the California Air Resources Board's (CARB's) "Glossary of Air Pollution Terms (CARB 2016a).

[3] The troposphere is the layer of the Earth's atmosphere nearest to the surface of the Earth. The troposphere extends outward about 5 miles at the poles and about 10 miles at the equator.

Nitrogen Dioxide. NO_2 is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide, which is a colorless, odorless gas. NO_x plays a major role, together with VOCs, in the atmospheric reactions that produce O_3. NO_x is formed from fuel combustion under high temperature or pressure. In addition, NO_x is an important precursor to acid rain and may affect both terrestrial and aquatic ecosystems. The two major emissions sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers.

NO_2 can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections (EPA 2016b).

Carbon Monoxide. CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, such as the Project location, automobile exhaust accounts for the majority of CO emissions. CO is a nonreactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions—primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, which is a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent.

In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions.

Sulfur Dioxide. SO_2 is a colorless, pungent gas formed primarily from incomplete combustion of sulfur-containing fossil fuels. The main sources of SO_2 are coal and oil used in power plants and industries; as such, the highest levels of SO_2 are generally found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels.

SO_2 is an irritant gas that attacks the throat and lungs and can cause acute respiratory symptoms and diminished ventilator function in children. When combined with particulate matter, SO_2 can injure lung tissue and reduce visibility and the level of sunlight. SO_2 can also yellow plant leaves and erode iron and steel.

Particulate Matter. Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate

matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. $PM_{2.5}$ and PM_{10} represent fractions of particulate matter. Coarse particulate matter (PM_{10}) consists of particulate matter that is 10 microns or less in diameter and is about 1/7 the thickness of a human hair. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. Fine particulate matter ($PM_{2.5}$) consists of particulate matter that is 2.5 microns or less in diameter and is roughly 1/28 the diameter of a human hair. $PM_{2.5}$ results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as sulfur oxides (SO_x), NO_x, and VOCs.

$PM_{2.5}$ and PM_{10} pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances such as lead, sulfates, and nitrates can cause lung damage directly or be absorbed into the blood stream, causing damage elsewhere in the body. Additionally, these substances can transport adsorbed gases such as chlorides or ammonium into the lungs, also causing injury. PM_{10} tends to collect in the upper portion of the respiratory system, whereas $PM_{2.5}$ is so tiny that it can penetrate deeper into the lungs and damage lung tissue. Suspended particulates also damage and discolor surfaces on which they settle and produce haze and reduce regional visibility.

People with influenza, people with chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death as a result of breathing particulate matter. People with bronchitis can expect aggravated symptoms from breathing in particulate matter. Children may experience a decline in lung function due to breathing in PM_{10} and $PM_{2.5}$ (EPA 2009).

Lead. Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturing of batteries, paints, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phaseout of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phaseout of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emissions sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in

severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth. Children are highly susceptible to the effects of lead.

Volatile Organic Compounds. Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of O_3 are referred to and regulated as VOCs (also referred to as reactive organic gases (ROGs)). Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

The primary health effects of VOCs result from the formation of O_3 and its related health effects. High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate health standards for VOCs as a group.

Non-Criteria Air Pollutants

Toxic Air Contaminants. A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure or acute and/or chronic non-cancer health effects. A toxic substance released into the air is considered a TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics "Hot Spots" Information and Assessment Act, Assembly Bill 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification to the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years.

Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources such as automobiles; and area sources such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and non-carcinogenic effects. Non-carcinogenic effects

typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

Diesel Particulate Matter. Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. More than 90% of DPM is less than 1 micrometer in diameter (about 1/70th the diameter of a human hair) and, thus, is a subset of $PM_{2.5}$ (CARB 2016b). DPM is typically composed of carbon particles ("soot," also called black carbon, or BC) and numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene (CARB 2016b). CARB classified "particulate emissions from diesel-fueled engines" (i.e., DPM; 17 CCR 93000) as a TAC in August 1998. DPM is emitted from a broad range of diesel engines: on-road diesel engines of trucks, buses, and cars and off-road diesel engines, including locomotives, marine vessels, and heavy-duty construction equipment, among others. Approximately 70% of all airborne cancer risk in California is associated with DPM (CARB 2000). To reduce the cancer risk associated with DPM, CARB adopted a diesel risk reduction plan in 2000 (CARB 2000). Because it is part of $PM_{2.5}$, DPM also contributes to the same non-cancer health effects as $PM_{2.5}$ exposure. These effects include premature death; hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma; increased respiratory symptoms; and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies (CARB 2016b). Those most vulnerable to non-cancer health effects are children whose lungs are still developing and the elderly who often have chronic health problems.

Odorous Compounds. Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and overall is quite subjective. People may have different reactions to the same odor. An odor that is offensive to one person may be perfectly acceptable to another (e.g., coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. Known as odor fatigue, a person can become desensitized to almost any odor, and recognition may only occur with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors.

Valley Fever. Coccidioidomycosis, more commonly known as "valley fever," is an infection caused by inhalation of the spores of the *Coccidioides immitis* fungus, which grows in the soils of the southwestern United States. The ecologic factors that appear to be most conducive to survival and replication of the spores are high summer temperatures, mild winters, sparse rainfall, and alkaline, sandy soils.

Riverside County is not considered a highly endemic region for valley fever as the latest report from the California Department of Public Health listed Riverside County as having 2.7 cases per 100,000 people (California Department of Public Health 2017). Similarly, among the total reported incidents of valley fever in Riverside County in 2015, only 0.9% of the cases were in Desert Hot Springs (Riverside University Health System Public Health 2016).

Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Facilities and structures where these air pollution-sensitive people live or spend considerable amounts of time are known as sensitive receptors. Land uses where air pollution-sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (sensitive sites or sensitive land uses) (CARB 2005). The SCAQMD identifies sensitive receptors as residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993). The closest area of disturbance associated with construction of the new turbines would be located approximately 2,100 feet from the nearest sensitive-receptor land use (resident), while the nearest area of disturbance associated with improvements to the access road would be located approximately 250 feet from the closest residence.

Regional and Local Air Quality Conditions

Coachella Valley Portion of the Salton Sea Air Basin Attainment Designation

Pursuant to the 1990 federal Clean Air Act amendments, the EPA classifies air basins (or portions thereof) as "attainment" or "nonattainment" for each criteria air pollutant, based on whether the National Ambient Air Quality Standards (NAAQS) have been achieved. Generally, if the recorded concentrations of a pollutant are lower than the standard, the area is classified as "attainment" for that pollutant. If an area exceeds the standard, the area is classified as "nonattainment" for that pollutant. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated as "unclassified" or "unclassifiable." The designation of "unclassifiable/attainment" means that the area meets the standard or is expected to be meet the standard despite a lack of monitoring data. Areas that achieve the standards after a nonattainment designation are re-designated as maintenance areas and must have approved maintenance plans to ensure continued attainment of the standards. The California Clean Air Act, like its federal counterpart, called for the designation of areas as "attainment" or "nonattainment," but based on the California Ambient Air Quality Standards (CAAQS) rather

than the NAAQS. Table 4.2-1 depicts the current attainment status of the Project site with respect to the NAAQS and CAAQS. The attainment classifications for the criteria pollutants are outlined in Table 4.2-1.

Table 4.2-1
Coachella Valley Portion of the Salton Sea Air Basin Attainment Classification

Pollutant	Designation/Classification	
	Federal Standards[a]	*State Standards*
Ozone (O_3) – 1 hour	No federal standard	**Nonattainment**
O_3 – 8 hours	**Severe nonattainment**	**Nonattainment**
Nitrogen dioxide (NO_2)	Unclassifiable/attainment	Attainment
Carbon monoxide (CO)	Unclassifiable/attainment	Attainment
Sulfur dioxide (SO_2)	Unclassifiable/attainment	Attainment
Coarse particulate matter (PM_{10})	**Serious nonattainment**	**Nonattainment**
Fine particulate matter ($PM_{2.5}$)	Unclassifiable/attainment	Attainment
Lead	Unclassifiable/attainment	Attainment
Hydrogen sulfide	No federal standard	Unclassified
Sulfates	No federal standard	Attainment
Visibility-reducing particles	No federal standard	Unclassified
Vinyl chloride	No federal standard	No designation

Source: SCAQMD 2017.
Notes: Bold text = not in attainment; Attainment = meets the standards; Attainment/maintenance = achieve the standards after a nonattainment designation; Nonattainment = does not meet the standards; Unclassified or Unclassifiable = insufficient data to classify; Unclassifiable/attainment = meets the standard or is expected to be meet the standard despite a lack of monitoring data.
[a] The level of attainment is based on the air quality data, emissions and emissions-related data, meteorology, geography/topography, and jurisdictional boundaries of the planning area.

In summary, the SSAB is designated as a nonattainment area for federal and state O_3 standards and federal and state PM_{10} standards. The SSAB is designated as an attainment area for federal and state CO, $PM_{2.5}$, NO_2, and SO_2 standards.

Despite the current nonattainment status, air quality within the SSAB has generally improved since the inception of air pollutant monitoring in 1976. This improvement is mainly due to lower-polluting on-road motor vehicles, more stringent regulation of industrial sources, and the implementation of emission reduction strategies by the South Coast Air Quality Management District (SCAQMD). This trend toward cleaner air has occurred in spite of continued population growth. Despite this growth, air quality has improved significantly over the years, primarily due to the impacts of the region's air quality control program. PM_{10} levels have declined almost 50% since 1990, and $PM_{2.5}$ levels have also declined 50% since measurements began in 1999 (SCAQMD 2013). Similar improvements are observed with O_3, although the rate of O_3 decline has slowed in recent years.

Local Ambient Air Quality

CARB, air districts, and other agencies monitor ambient air quality at approximately 250 air quality monitoring stations across the state. SCAQMD monitors local ambient air quality in the region of the Project site. Air quality monitoring stations usually measure pollutant concentrations 10 feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. The most recent background ambient air quality data from 2014 to 2016 are presented in Table 4.2-2. The Palm Springs monitoring station, located at 590 Racquet Club Road, Palm Springs, California, is the nearest air quality monitoring station to the Project site, located approximately 7.6 miles southeast of the Project site. The data collected at this station are considered representative of the air quality experienced in the Project vicinity. Air quality data for O_3, CO, NO_2, PM_{10}, and $PM_{2.5}$ from the Palm Springs monitoring station are provided in Table 4.2-2. Because SO_2 measurements are not monitored at the Palm Springs monitoring station, the measurements were taken from the Rubidoux monitoring station (1588 Mission Boulevard, Rubidoux, California, approximately 48 miles west of the Project site). The number of days exceeding the ambient air quality standards is also shown in Table 4.2-2.

Table 4.2-2
Local Ambient Air Quality Data

Monitoring Station	Unit	Averaging Time	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
					2014	*2015*	*2016*	*2014*	*2015*	*2016*
Ozone (O_3)										
Palm Springs	ppm	Maximum 1-hour concentration	State	0.09	0.108	0.102	0.103	9	3	6
	ppm	Maximum 8-hour concentration	State	0.070	0.093	0.093	0.092	61	51	48
			Federal	0.070	0.0933	0.092	0.092	55	47	46
Nitrogen Dioxide (NO_2)										
Palm Springs	ppm	Maximum 1-hour concentration	State	0.18	0.046	0.041	0.042	0	0	0
			Federal	0.100	0.046	0.042	0.043	0	0	0
	ppm	Annual concentration	State	0.030	—	0.006	0.006	—	0	0
			Federal	0.053	—	0.0006	0.0006	—	0	0
Carbon Monoxide (CO)										
Palm Springs	ppm	Maximum 1-hour concentration	State	20	2.2	2.0	3.1	0	0	0
			Federal	35	2.2	2.0	3.1	0	0	0
	ppm	Maximum 8-hour concentration	State	9.0	0.8	0.7	1.5	0	0	0
			Federal	9	0.8	0.7	1.5	0	0	0
Sulfur Dioxide (SO_2)										
Rubidoux	ppm	Maximum 1-hour concentration	Federal	0.075	0.056	0.019	0.056	0	0	0

Table 4.2-2
Local Ambient Air Quality Data

Monitoring Station	Unit	Averaging Time	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
					2014	*2015*	*2016*	*2014*	*2015*	*2016*
	ppm	Maximum 24-hour concentration	Federal	0.14	0.01	0.01	0.01	0	*0*	*0*
	ppm	Annual concentration	Federal	0.030	0.026	0.027	0.023	0	0	0
Coarse Particulate Matter (PM_{10})[a]										
Palm Springs	μg/m³	Maximum 24-hour concentration	State	50	56.0	183.0	—	— (2)	— (2)	— (-)
			Federal	150	313.8	199.0	447.2	1.1 (1)	1.0 (1)	1.1 (1)
	μg/m³	Annual concentration	State	20	—	—	—	—	—	—
Fine Particulate Matter ($PM_{2.5}$)[a]										
Palm Springs	μg/m³	Maximum 24-hour concentration	Federal	35	11.4	22.7	14.7	0	0	0
	μg/m³	Annual concentration	State	12	—	—	5.4	—	—	0
			Federal	12.0	—	—	5.4	—	—	0

Sources: CARB 2016c; EPA 2016c.
Notes: — = not available; ppm = parts per million; μg/m³ = micrograms per cubic meter.
Data taken from CARB iADAM (http://www.arb.ca.gov/adam) and EPA AirData (http://www.epa.gov/airdata/) represent the highest concentrations experienced over a given year.
Exceedances of federal and state standards are only shown for O_3 and particulate matter. Daily exceedances for particulate matter are estimated days because PM_{10} and $PM_{2.5}$ are not monitored daily. All other criteria pollutants did not exceed federal or state standards during the years shown. There is no federal standard for 1-hour ozone, annual PM_{10}, or 24-hour SO_2, nor is there a state 24-hour standard for $PM_{2.5}$.
[a] Measurements of PM_{10} and $PM_{2.5}$ are usually collected every 6 days and every 1 to 3 days, respectively. Number of days exceeding the standards is a mathematical estimate of the number of days concentrations would have been greater than the level of the standard had each day been monitored. The numbers in parentheses are the measured number of samples that exceeded the standard.

4.2.2 Relevant Plans, Policies, and Procedures

Regulatory oversight for air quality in the SSAB is maintained by the EPA at the federal level, CARB at the state level, and by the SCAQMD at the local level. Applicable laws, regulations, and standards of these three agencies are described in the following subsections.

Federal

Criteria Air Pollutants

The federal Clean Air Act, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The EPA is responsible for implementing most aspects of the Clean Air Act, including setting NAAQS for major air pollutants; setting hazardous air pollutant (HAP) standards;

approving state attainment plans; setting motor vehicle emission standards; issuing stationary source emission standards and permits; and establishing acid rain control measures, stratospheric O_3 protection measures, and enforcement provisions. Under the Clean Air Act, NAAQS are established for the following criteria pollutants: O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The NAAQS (other than for O_3, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for O_3, NO_2, SO_2, PM_{10}, and $PM_{2.5}$ are based on statistical calculations over 1- to 3-year periods, depending on the pollutant. The Clean Air Act requires the EPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a state implementation plan that demonstrates how those areas will attain the standards within mandated time frames.

Hazardous Air Pollutants

The 1977 federal Clean Air Act amendments required the EPA to identify National Emission Standards for HAPs to protect public health and welfare. HAPs include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 federal Clean Air Act Amendments, which expanded the control program for HAPs, 189 substances and chemical families were identified as HAPs.

State

Criteria Air Pollutants

The federal Clean Air Act delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to CARB, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB, which became part of the California EPA in 1991, is responsible for ensuring implementation of the California Clean Air Act of 1988, responding to the federal Clean Air Act, and regulating emissions from motor vehicles and consumer products.

CARB has established CAAQS, which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; that is, pollution levels must be below these standards before a basin can attain the standard. Air quality is considered "in attainment" if pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The CAAQS for O_3, CO, SO_2 (1 hour and 24 hours), NO_2, PM_{10}, and $PM_{2.5}$ and visibility-reducing

particles are values that are not to be exceeded. All others are not to be equaled or exceeded. The NAAQS and CAAQS are presented in Table 4.2-3.

Table 4.2-3
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]	National Standards[b]	
		Concentration[c]	*Primary*[c,d]	*Secondary*[c,e]
O_3	1 hour	0.09 ppm (180 μg/m³)	—	Same as Primary Standard[f]
	8 hours	0.070 ppm (137 μg/m³)	0.070 ppm (137 μg/m³)[f]	
NO_2[g]	1 hour	0.18 ppm (339 μg/m³)	0.100 ppm (188 μg/m³)	Same as Primary Standard
	Annual Arithmetic Mean	0.030 ppm (57 μg/m³)	0.053 ppm (100 μg/m³)	
CO	1 hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	None
	8 hours	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)	
SO_2[h]	1 hour	0.25 ppm (655 μg/m³)	0.075 ppm (196 μg/m³)	—
	3 hours	—	—	0.5 ppm (1,300 μg/m³)
	24 hours	0.04 ppm (105 μg/m³)	0.14 ppm (for certain areas)[g]	—
	Annual	—	0.030 ppm (for certain areas)[g]	—
PM_{10}[i]	24 hours	50 μg/m³	150 μg/m³	Same as Primary Standard
	Annual Arithmetic Mean	20 μg/m³	—	
$PM_{2.5}$[i]	24 hours	—	35 μg/m³	Same as Primary Standard
	Annual Arithmetic Mean	12 μg/m³	12.0 μg/m³	15.0 μg/m³
Lead[j,k]	30-Day Average	1.5 μg/m³	—	—
	Calendar Quarter	—	1.5 μg/m³ (for certain areas)[k]	Same as Primary Standard
	Rolling 3-Month Average	—	0.15 μg/m³	
Hydrogen sulfide	1 hour	0.03 ppm (42 μg/m³)	—	—
Vinyl chloride[j]	24 hours	0.01 ppm (26 μg/m³)	—	—
Sulfates	24 hours	25 μg/m³	—	—
Visibility reducing particles	8 hour (10:00 a.m. to 6:00 p.m. PST)	Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to the number of particles when the relative humidity is less than 70%	—	—

Source: CARB 2016b.
Notes: μg/m³ = micrograms per cubic meter; mg/m³= milligrams per cubic meter; ppm = parts per million by volume; O_3 = ozone; NO_2 = nitrogen dioxide; CO = carbon monoxide; SO_2 = sulfur dioxide; PM_{10} = particulate matter with an aerodynamic diameter less than or equal to 10 microns; $PM_{2.5}$ = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns.

[a] California standards for O_3, CO, SO_2 (1 hour and 24 hours), NO_2, suspended particulate matter (PM_{10}, $PM_{2.5}$), and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] National standards (other than O_3, NO_2, SO_2, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once per year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

[c] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[d] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

[e] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[f] On October 1, 2015, the national 8-hour O_3 primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[g] To attain the national 1-hour standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb). Note that the national 1-hour standard is in units of ppb. California standards are in units of ppm. To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[h] On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the national 1-hour standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24 hours and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment of the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

[i] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 were also retained. The form of the annual primary and secondary standards is the annual mean averaged over 3 years.

[j] CARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[k] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

Toxic Air Contaminants

The state Air Toxics Program was established in 1983 under AB 1807 (Tanner). The California TAC list identifies more than 700 pollutants, of which carcinogenic and non-carcinogenic toxicity criteria have been established for a subset of these pollutants pursuant to the California Health and Safety Code. In accordance with AB 2728, the state list includes the (federal) HAPs. In 1987, the legislature enacted the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) to address public concern over the release of TACs into the atmosphere. AB 2588 law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification to the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years. TAC emissions from individual facilities are quantified and prioritized. "High-priority" facilities are required to perform a health risk assessment, and if specific thresholds are exceeded, the facility operator is required to communicate the results to the public in the form of notices and public meetings.

In 2000, CARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines (CARB 2000). The regulation is anticipated to result in an 80% decrease in statewide diesel health risk in 2020 compared with the diesel risk in 2000. Additional regulations apply to new trucks and diesel fuel, including the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In-Use Off-Road Diesel Vehicle Regulation, and the New Off-Road Compression-Ignition (Diesel) Engines and Equipment program. These regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment. There are several Airborne Toxic Control Measures that reduce diesel emissions, including In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.) and In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025).

California Health and Safety Code, Section 41700

This section of the California Health and Safety Code states that a person shall not discharge, from any source whatsoever, quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or that endanger the comfort, repose, health, or safety of any of those persons or the public; or that cause, or have a natural tendency to cause, injury or damage to business or property. This section also applies to sources of objectionable odors.

Regional and Local

South Coast Air Quality Management District

SCAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the Riverside County portion of the SSAB, where the Project is located. SCAQMD operates monitoring stations in the SSAB, develops rules and regulations for stationary sources and equipment, prepares emissions inventory and air quality management planning documents, and conducts source testing and inspections. The SCAQMD's Air Quality Management Plans (AQMPs) include control measures and strategies to be implemented to attain CAAQS and NAAQS in the SSAB. SCAQMD then implements these control measures as regulations to control or reduce criteria pollutant emissions from stationary sources or equipment.

The most recent AQMP is the 2016 AQMP (SCAQMD 2017), adopted by the SCAQMD governing board on March 3, 2017. The 2016 AQMP is a regional blueprint for achieving air quality standards and healthful air. The 2016 AQMP represents a new approach, focusing on available, proven, and cost-effective alternatives to traditional strategies while seeking to achieve multiple goals in partnership with other entities promoting reductions in GHGs and toxic risk, as well as efficiencies in energy use, transportation, and goods movement (SCAQMD 2017).

Because mobile sources are the principal contributor to the SSAB's air quality challenges, the SCAQMD has been and will continue to be closely engaged with CARB and the EPA, who have primary responsibility for these sources. The 2016 AQMP recognizes the critical importance of working with other agencies to develop funding and other incentives that encourage the accelerated transition of vehicles, buildings, and industrial facilities to cleaner technologies in a manner that benefits not only air quality but also local businesses and the regional economy. These "win-win" scenarios are key to implementation of this 2016 AQMP with broad support from a wide range of stakeholders.

On April 18, 2003, the EPA approved the 2003 Coachella Valley State Implementation Plan (2003 CVSIP), which addressed future-year attainment of the annual average PM_{10} NAAQS with a 2006 attainment deadline. This federal standard was revoked effective December 15, 2006. Since 2007, annual average PM_{10} concentrations have met the revoked federal annual standard (50 $\mu g/m^3$). The 2003 CVSIP also addressed continued attainment of the 24-hour PM_{10} federal standard, except for uncontrollable natural events. The 2016 AQMP does not include new modeling efforts for PM_{10}. Since the mid-1990s, peak 24-hour average PM_{10} concentrations have not exceeded the current federal standard (150 $\mu g/m^3$) other than on days with windblown dust from natural events, which can be excluded upon EPA concurrence, consistent with the Exceptional Event Rules and prior policies. The PM_{10} data from the Coachella Valley monitors shows attainment of the 24-hour PM_{10} NAAQS after the removal of the flagged high-wind exceptional events, for which SCAQMD supporting documentation will be submitted and subsequent EPA approval will be required. However, the EPA has requested that SCAQMD conduct additional ambient monitoring in the southeastern portion of the Coachella Valley before the re-designation can be considered. This new station has been in operation since 2013 in the community of Mecca, and re-designation will be revisited upon analysis of the required three full years of data.

The previous AQMP was the 2012 AQMP, which was adopted in February 2013 (SCAQMD 2013). The 2012 AQMP proposed policies and measures to achieve federal and state standards for improved air quality in the SSAB and those portions of the SSAB (formerly named the Southeast Desert Air Basin) that are under SCAQMD jurisdiction. The 2012 AQMP was designed to meet applicable federal and state requirements for O_3 and particulate matter. The 2012 AQMP documented that attainment of the federal 24-hour $PM_{2.5}$ standard was impracticable by 2015, and SSAB should be classified as a "serious" nonattainment area along with the appropriate federal requirements. The 2012 AQMP included the planning requirements to meet the 1-hour O_3 standard. The 2012 AQMP demonstrated attainment of the federal 24-hour $PM_{2.5}$ standard by 2014 in the SSAB through adoption of all feasible measures. Finally, the 2012 AQMP updated the EPA-approved 8-hour O_3 control plan with new measures designed to reduce reliance on the Clean Air Act Section 182(e)(5) long-term measures for NO_x and VOC reductions. The 2012 AQMP reduction and control measures, which are outlined to mitigate emissions, are based on existing and projected land use and development. The EPA, with a final

ruling on April 14, 2016, approved the Clean Air Act planning requirements for the 24-hour $PM_{2.5}$ standard portion, and on September 3, 2014, approved the 1-hour O_3 Clean Air Act planning requirements.

Applicable SCAQMD Rules

Emissions that would result from stationary and area sources during operation under the project may be subject to SCAQMD rules and regulations. The SCAQMD rules applicable to the project may include the following:

- **Rule 401 – Visible Emissions:** This rule establishes the limit for visible emissions from stationary sources.
- **Rule 402 – Nuisance:** This rule prohibits the discharge of air pollutants from a facility that causes injury, detriment, nuisance, or annoyance to the public or damage to business or property.
- **Rule 403 – Fugitive Dust:** This rule requires fugitive dust sources to implement best available control measures for all sources and prohibits all forms of visible particulate matter from crossing any property line. SCAQMD Rule 403 is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust.
- **Rule 403.1 – Supplemental Fugitive Dust Control Requirements for Coachella Valley Sources:** This rule enacts fugitive dust control requirements that are in addition to those within Rule 403 and apply only to sources within the Coachella Valley.
- **Rule 431.2 – Sulfur Content of Liquid Fuels:** The purpose of this rule is to limit the sulfur content in diesel and other liquid fuels for the purpose of reducing the formation of SO_x and particulates during combustion and of enabling the use of add-on control devices for diesel-fueled internal combustion engines. The rule applies to all refiners, importers, and other fuel suppliers, such as distributors, marketers, and retailers, as well as to users of diesel, low-sulfur diesel, and other liquid fuels for stationary-source applications in the SCAQMD. The rule also affects diesel fuel supplied for mobile sources.

Coachella Valley Association of Governments

The City is within the jurisdiction of the Coachella Valley Association of Governments (CVAG), which participates in regional planning under the Southern California Association of Governments (SCAG). CVAG is, among other things, the regional transportation planning agency coordinating government services in the Coachella Valley. As the recognized transportation planning agency with the Riverside County Transportation Commission, it is CVAG's responsibility to prepare and adopt a Regional Transportation Plan (RTP) for the Coachella Valley. This is accomplished through the

creation of the Transportation Project Prioritization Study (TPPS), which identifies and prioritizes transportation projects in the region. The CVAG developed its first TPPS in 1989, with subsequent report updates in 1993, 1999, 2005, and 2010. The most recent version was adopted on June 26, 2017 (CVAG 2017). The TPPS includes growth projections for cities within the Coachella Valley. The projects and growth projections within the TPPS are fed into a larger regional planning effort by the SCAG. SCAG recently released its 2016 RTP, which includes the majority of projects seen within the TPPS. The SCAQMD 2016 AQMP applies the updated SCAG growth forecasts assumed in the 2016 RTP/SCS. Responding to the context of the RTP guidelines and California state legislation, CVAG's Active Transportation Plan, also within the TPPS, was designed to be completed simultaneously with the TPPS and Regional Arterial Cost Estimate documents. Together, this family of documents serves as CVAG's RTP, listing all regionally significant transportation projects, including roadway projects, active transportation projects, and other improvement projects that have been identified to benefit regional circulation within the Coachella Valley. CVAG also developed fugitive dust ordinances that include (1) dust control plans for each construction project needing a grading permit, (2) plans to pave or chemically treat unpaved surfaces if daily vehicle trips exceed 150, (3) imposition of 15-mile-per-hour speed limits for unpaved surfaces if daily vehicle trips do not exceed 150, (4) paving or chemical treatment of unpaved parking lots, and (5) actions to discourage use of unimproved property by off-highway vehicles.

City of Desert Hot Springs

City of Desert Hot Springs General Plan

The City's General Plan was developed to guide the future land use and development patterns within the City's planning area, which includes lands contained within the City boundary and unincorporated lands adjacent to the City's borders identified as areas likely to be serviced or annexed by the City in the future. Policies pertaining to improving air quality are addressed in the Air Quality Element of the General Plan. Policies associated with air quality are as follows (City of Desert Hot Springs 2000):

Air Quality Element

Policy 1: The City shall coordinate and cooperate with CVAG and SCAQMD in the on going monitoring and management of major pollutants affecting the City and region, with particular focus on PM_{10}, and shall provide all required reporting to be included in SCAQMD's annual report.

Policy 2: The General Plan Land Use Element shall be developed and maintained to locate air pollution point sources, such as manufacturing facilities, at an appropriate distance from residential areas and other sensitive receptors.

Policy 3: The City shall promote the development of pedestrian-oriented retail centers, as well as community-wide multi-use trails and bike paths, dedicated bike lanes and other desirable alternatives to motor vehicle traffic.

Policy 4: The City shall promote the appropriate and cost-effective development and coordination of mass transit/shuttle service linking residential, shopping, resort and commercial centers of the City, and participate with CVAG, Southern California Association of Governments and public and private service providers to improve and optimize regional transportation services.

Policy 5: The City shall encourage the use of clean alternative energy sources for transportation, heating and cooling whenever practical.

Policy 6: All development proposals brought before the City will be reviewed for potential adverse effects on air quality and will be required to mitigate any significant impacts.

As discussed further in the following sections, many air quality strategies result in co-benefits with reducing GHG emissions. The City also enacted the City of Desert Hot Springs PM_{10} Fugitive Dust Control Ordinance, Ordinance 2003-16, as a practical tool for developers, consultants, and contractors to report on air quality impacts and mitigation measures associated with individual developments (City of Desert Hot Springs 2003). The purpose of the ordinance is to establish minimum requirements for construction and demolition activities and other specified sources in order to reduce manufactured fugitive dust and the corresponding PM_{10} emissions.

4.2.3 Thresholds of Significance

Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.) provides guidance for evaluating whether a development project may result in significant impacts. Based on Appendix G of the CEQA Guidelines, the Project would have a significant impact on air quality if the Project would:

1. Conflict with or obstruct implementation of the applicable air quality plan. (*The WECS 20 FEIR previously found this impact to be less-than-significant with mitigation incorporated.*)
2. Violate any air quality standard or contribute substantially to an existing or projected air quality violation. (*The WECS 20 FEIR previously found this impact to be less than significant with mitigation incorporated.*)
3. Result in a cumulatively considerable net increase of any criteria pollutant for which the proposed project region is non-attainment under an applicable federal or state ambient air

quality standard (including releasing emissions which exceed quantitative thresholds for O_3 precursors). (*The WECS 20 FEIR previously found this impact to be less than significant with mitigation incorporated.*)

4. Expose sensitive receptors to substantial pollutant concentrations. (*The WECS 20 FEIR previously found this impact to be less than significant with mitigation incorporated.*)
5. Create objectionable odors affecting a substantial number of people. (*The WECS 20 FEIR previously found this impact to be less than significant.*)

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to determine whether the Project would have a significant impact on air quality. SCAQMD has established Air Quality Significance Thresholds, as revised in March 2015 (SCAQMD 2015), that set forth quantitative emissions thresholds below which a proposed project would not have a significant impact on ambient air quality. Proposed project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 4.2-4, SCAQMD Air Quality Significance Thresholds, are exceeded.

The Project would result in a substantial contribution to an existing air quality violation of the NAAQS or CAAQS for O_3 (see Table 4.2-3), which is a nonattainment pollutant, if the Project's construction or operational emissions would exceed the SCAQMD VOC or NO_x threshold shown in Table 4.2-4. These emissions-based thresholds for O_3 precursors are intended to serve as a surrogate for an "ozone significance threshold" (i.e., the potential for adverse O_3 impacts to occur) because O_3 itself is not emitted directly (see the discussion of O_3 and its sources in Section 4.2.1), and the effects of an individual proposed project's emissions of O_3 precursors on levels in ambient air cannot be determined through air quality models or other quantitative methods.

Table 4.2-4
South Coast Air Quality Management District Air Quality Significance Thresholds

Criteria Pollutants Mass Daily Thresholds		
Pollutant	*Construction (pounds per day)*	*Operation (pounds per day)*
VOCs	75	55
NO_x	100	55
CO	550	550
SO_x	150	150
PM_{10}	150	150
$PM_{2.5}$	55	55
Lead[a]	3	3

Table 4.2-4
South Coast Air Quality Management District Air Quality Significance Thresholds

Criteria Pollutants Mass Daily Thresholds		
Pollutant	*Construction (pounds per day)*	*Operation (pounds per day)*
TACs and Odor Thresholds		
TACs[b]	Maximum incremental cancer risk ≥ 10 in 1 million Chronic and acute hazard index ≥ 1.0 (proposed project increment)	
Odor	Proposed project creates an odor nuisance pursuant to SCAQMD Rule 402	
Ambient Air Quality Standards for Criteria Pollutants[c]		
NO_2 1-hour average NO_2 annual arithmetic mean	SCAQMD is in attainment; proposed project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.030 ppm (state) and 0.0534 ppm (federal)	
CO 1-hour average CO 8-hour average	SCAQMD is in attainment; proposed project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
PM_{10} 24-hour average PM_{10} annual average	10.4 μg/m³ (construction)[d] 2.5 μg/m³ (operation) 1.0 μg/m³	
$PM_{2.5}$ 24-hour average	10.4 μg/m³ (construction)[d] 2.5 μg/m³ (operation)	

Source: SCAQMD 2015.
Notes: SCAQMD = South Coast Air Quality Management District; VOCs = volatile organic compounds; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; TAC = toxic air contaminant; NO_2 = nitrogen dioxide; ppm = parts per million; μg/m³ = micrograms per cubic meter
GHG emissions thresholds for industrial proposed projects, as added in the March 2015 revision to the SCAQMD Air Quality Significance Thresholds, were not include included in Table 4.2-4 because they will be addressed within the GHG emissions analysis and not the air quality study.
[a] The phase out of leaded gasoline started in 1976. Since gasoline no longer contains lead, the Project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.
[b] TACs include carcinogens and non-carcinogens.
[c] Ambient air quality standards for criteria pollutants are based on SCAQMD Rule 1303, Table A-2, unless otherwise stated.
[d] Ambient air quality threshold are based on SCAQMD Rule 403.

In addition to the emission-based thresholds listed in Table 4.2-4, SCAQMD also recommends the evaluation of localized air quality impacts to sensitive receptors in the immediate vicinity of the Project as a result of construction activities. Such an evaluation is referred to as a localized significance threshold (LST) analysis. For proposed project sites of 5 acres or less, the Localized Significance Threshold Methodology (SCAQMD 2009) includes lookup tables that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance criteria (i.e., the emissions would not cause an exceedance of the applicable concentration limits for NO_2 and CO, PM_{10} and $PM_{2.5}$) without performing dispersion modeling.

The Project site is approximately 160 acres. However, given that the Project site's topography and other physical constraints will limit daily construction activities to less than 5 acres of

earthwork per day, and because the Project's permanent disturbance will equate to less than 5 acres total, lookup tables were used because construction of the Project will not disturb more than 5 acres per day. More pragmatically, the Project would likely disturb no more than 1 acre per day, as discussed in detail in the following text; therefore, it is appropriate to use the lookup tables for the LST evaluation.

The LST significance thresholds for NO_2 and CO represent the allowable increase in concentrations above background levels in the vicinity of a proposed project that would not cause or contribute to an exceedance of the relevant ambient air quality standards, while the threshold for PM_{10} were derived based on compliance with Rule 403 (Fugitive Dust). The LST significance threshold for $PM_{2.5}$ is intended to ensure that construction 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:

- Source-receptor area (SRA) in which the proposed project is located
- Size of the proposed project site
- Distance between the proposed project site and the nearest sensitive receptor (e.g., residences, schools, and hospitals)

The Project site is located in SRA 30 (Coachella Valley). The SCAQMD provides guidance for applying the California Emissions Estimator Model (CalEEMod) to the LSTs. LST pollutant screening level concentration data are currently published for 1-, 2-, and 5-acre sites for varying distances. Due to site constraints, including size and topography, that would place limits on the amount of construction activities and number of equipment that can be operated concurrently, the Project would disturb approximately 1 acre per day. Therefore, using the LST for a 1-acre site is appropriate for the Project.

The nearest sensitive-receptor land use (an existing resident) is located approximately 250 feet from the closest area of disturbance. The LST tables provide thresholds based on sensitive receptors located at 50 meters (164 feet) and 100 meters (328 feet) from a project site's boundary. To be conservative, the LST receptor threshold for 164 feet (50 meters) was used in the analysis. The LST values from the SCAQMD lookup tables for SRA 30 (Coachella Valley) for a 1-acre Project site and a receptor distance of 50 meters are shown in Table 4.2-5.

Table 4.2-5
Localized Significance Thresholds for Source-Receptor Area 30 (Coachella Valley)

Pollutant	Threshold (pounds per day)
NO_2	166
CO	1,387

Table 4.2-5
Localized Significance Thresholds for Source-Receptor Area 30 (Coachella Valley)

Pollutant	Threshold (pounds per day)
PM_{10}	13
$PM_{2.5}$	5

Source: SCAQMD 2009.
Notes: NO_2 = nitrogen dioxide; CO = carbon monoxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter
LST thresholds were determined based on the values for 1-acre site at a distance of 50 meters from the nearest sensitive receptor.

Approach and Methodology

Construction

Emissions from the construction phase of the Project were estimated using CalEEMod Version 2016.3.2 (CAPCOA 2017). Construction scenario assumptions, including phasing, equipment mix, and vehicle trips, were based on information provided by the Project Applicant and CalEEMod default values when Project specifics were not known.

The air quality modeling was completed in May 2018. For purposes of estimating Project emissions, and based on information provided by the Project Applicant at the time that the air quality modeling was conducted, it was assumed that construction of the Project would commence in November 2018 and would last approximately 13 months, ending in December 2019. Although this construction assumption is no longer possible, the modeling provided a more conservative determination of emission concentrations, because the air quality model assumes annual improvements in technologies and equipment. As a result, although actual construction of the proposed Project will not occur until late 2019, the analysis provided herein is conservative, and actual emissions are likely to be marginally lower than presented.

Turbine decommissioning work was divided into two discreet subphases. The first subphase would involve decommissioning existing turbines within the grading footprint of the Project while the second subphase would involve decommissioning of all remaining turbines. The analysis contained herein is based on the following assumptions (duration of phases is approximate):

- Existing turbine decommissioning (first phase): two months (November 2018–December 2018)
- Constructions equipment and materials mobilization/laydown: two weeks (December 2018)
- Site preparation/grading: three months (December 2018–February 2019)
- Grading/re-grading of access roads: three months (February 2019–April 2019)
- Installation of collection lines: two months (April 2019–May 2019)

- Pouring of foundations: two months (May 2019–June 2019)
- Installation of new turbines: two months (June 2019–July 2019)
- Existing turbine decommissioning (second phase): six months (July 2019–December 2019)[4]

Construction worker estimates and vendor truck trips by construction phase were provided by the Project Applicant. The number of haul truck trips was estimated based on an average truck size of 16 cubic yards. CalEEMod default trip length values were used for the distances for all construction-related trips. The Project assumed an average concrete delivery truck of 8 cubic yards and approximately 592 cubic yards of concrete needed per new turbine installation. The demolition of the existing turbines was assumed to require approximately four semi-trailers and four haul trucks per existing turbine to be removed. The Project is anticipated to use up to 16,000 gallons per day of water for dust suppression during earth-moving phases. The construction equipment mix and vehicle trips used for estimating the Project-generated construction emissions are shown in Table 4.2-6.

Table 4.2-6
Construction Workers, Vendor Trips, and Equipment Use per Day

	One-Way Vehicle Trips			Equipment		
Construction Phase	*Average Daily Worker Trips*	*Average Daily Vendor Truck Trips*	*Total Haul Truck Trips*	*Equipment Type*	*Quantity*	*Usage Hours*
Turbine Decommissioning (First Phase)	24	20	136	Air Compressors	4	8
				Cranes	2	8
				Generator Sets	4	8
				Tractors/Loaders/Backhoes	2	4
Mobilization/Laydown	12	6	0	Forklifts	1	8
				Graders	1	4
				Rollers	1	4
				Rubber-Tired Dozers	2	4
				Tractors/Loaders/Backhoes	1	4
Site Prep/Grading	14	4	0	Forklifts	1	8
				Graders	1	4
				Rollers	1	4
				Rubber-Tired Dozers	1	4
				Tractors/Loaders/Backhoes	2	4

[4] Emissions from the ultimate decommissioning and removal of the project were not estimated. Decommissioning of the Project is expected to require less activity than what was estimated for construction of the Project. Since activity would be less, emissions would also be less during decommissioning. Furthermore, emissions from construction equipment and vehicles would be less during decommissioning than during construction, since engines are expected to be cleaner and more efficient in the future.

Table 4.2-6
Construction Workers, Vendor Trips, and Equipment Use per Day

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	*Average Daily Vendor Truck Trips*	*Total Haul Truck Trips*	*Equipment Type*	*Quantity*	*Usage Hours*
Roads	24	2	0	Forklifts	1	8
				Graders	3	4
				Rollers	3	4
				Rubber-Tired Dozers	3	4
				Tractors/Loaders/Backhoes	2	4
Collection	18	4	0	Cranes	1	8
				Excavators	1	4
				Forklifts	2	8
				Graders	1	4
				Rollers	1	4
				Rubber-Tired Dozers	1	4
				Tractors/Loaders/Backhoes	1	4
				Trenchers	1	4
Foundations	14	28	0	Excavators	1	4
				Forklifts	1	8
				Graders	1	4
				Rollers	1	4
				Rubber-Tired Dozers	2	4
				Tractors/Loaders/Backhoes	1	4
Install	18	24	0	Cranes	4	8
				Forklifts	2	8
				Rollers	1	4
				Rubber-Tired Dozers	1	4
				Trenchers	1	4
Turbine Decommissioning (Second Phase)	24	20	418	Air Compressors	4	8
				Cranes	2	8
				Generator Sets	4	8
				Tractors/Loaders/Backhoes	2	4

Source: See Appendix D for details.

The decommissioning stage of the Project consists of dismantling and removing the existing wind turbine generators (WTG), removing turbine access roads not required for the Project, and removing the existing overhead collection line and poles, if elected not to re-use them. The decommissioning process for the Project is provided in detail in Section 3.4.1, Decommissioning of Existing Wind Turbines, in Chapter 3, Project Description.

Where feasible, the existing network of permanent access roads would be retained and reused for the new wind turbines. In addition to the existing roads, permanent access and maintenance roads would be constructed to provide access and circulation within the Project. These access roads will consist of 16-foot-wide permanent roads to provide access to each wind turbine and ancillary equipment. These same permanent access roads would be used during construction, although the width of these roads may be temporarily increased to up to 36 feet wide to accommodate cranes and larger construction equipment. For the purpose of the air emissions analysis, this was estimated to be 9.6 acres of temporary disturbance and 4.27 acres of permanent disturbance for access roads.

Operation

The Project will not require an on-site operations and maintenance (O&M) facility. The existing remote O&M building and yard will store critical spare wind turbine parts and provide a building for maintenance services. The facility includes permanent administrative, maintenance, and storage building structures. Routine Project maintenance will include the periodic clearing of sand (as currently occurs) from within the switchyard fences and Project access roads due to high quantities of sand blowing into the area and accumulating in areas where wind velocities are slowed by fences, turbine towers, and utility poles.

To operate the existing wind energy facilities, the Project Applicant employs approximately 10 people. Once repowered, a similarly sized operations team would continue to work on the Project and on the Project site. No net increase in the number of people employed and working on the Project site would occur. Activities associated with long-term O&M were not quantified because they would not increase over what currently exists.

Future Decommissioning

The Project lifespan would be at least 30 years. When the proposed facility is decommissioned, the four wind turbines would be removed from the Project site and the materials would be reused or sold for scrap. Decommissioning activities are anticipated to result in similar intensity of impacts as those associated with the decommissioning of the existing wind turbines. For this reason, impacts associated with future decommissioning of the Project's new wind turbines would be similar, if not nearly identical, to those impacts related to the decommissioning of the existing 69 wind turbines that are currently found on site.

4.2.4 Impacts Analysis

a) Would the project conflict with or obstruct implementation of the applicable air quality Plan?

As previously discussed, the Project site is located within the SSAB under the jurisdiction of the SCAQMD, which is the regional agency responsible for administration and enforcement of air quality regulations for the area. The SCAQMD has established criteria for determining consistency with the AQMP, currently the 2016 AQMP, in Chapter 12, Sections 12.2 and 12.3, in the SCAQMD CEQA Air Quality Handbook (SCAQMD 1993). The criteria are as follows (SCAQMD 1993):

> **Consistency Criterion No. 1:** The Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay the timely attainment of air quality standards of the interim emissions reductions specified in the AQMP.
>
> **Consistency Criterion No. 2:** The Project will not exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

Consistency Criterion No. 1

Section 4.2.4(b) evaluates the Project's potential impacts in regards to CEQA Guidelines Appendix G Threshold 2 (the Project's potential to violate any air quality standard or contribute substantially to an existing or projected air quality violation impact analysis). As discussed in Section 4.2.4(b), the Project would not result in an exceedance of SCAQMD thresholds during construction for any criteria air pollutant. Therefore, the Project would not result in an increase in the frequency or severity of existing air quality violations and would not conflict with Consistency Criterion No. 1 of the SCAQMD CEQA Air Quality Handbook.

Consistency Criterion No. 2

While striving to achieve the NAAQS for O_3 and $PM_{2.5}$ and the CAAQS for O_3, PM_{10}, and $PM_{2.5}$ through a variety of air quality control measures, the 2016 AQMP also accommodates planned growth in the SSAB. Projects are considered consistent with, and would not conflict with or obstruct implementation of, the AQMP if the growth in socioeconomic factors (e.g., population and employment) is consistent with the underlying regional plans used to develop the AQMP (per Consistency Criterion No. 2 of the SCAQMD CEQA Air Quality Handbook).

The Project site has a General Plan land use designation of Energy-Related Industrial and is located within the "I-E" (Industrial-Scale Energy Production) zone. The Energy-Related Industrial land use designation provides for the development of energy-producing industries, including windfarms and solar photovoltaic or thermal arrays on an industrial scale. According to Section 17.16.140 of the City's Zoning Code, a wind energy conversion system (WECS) subject to the standards and development criteria contained in Section 17.16.140(E) is conditionally permitted in the commercial and industrial zoning districts. According to the provisions of Section 17.16.140(A) of the City's Zoning Code:

> a Conditional Use Permit process for a commercial WECS is intended to regulate and provide for the installation of commercial WECS which are made feasible by the strong prevailing winds within certain areas of the City designated by the General Plan. The conditions of the permit are meant to ensure that a safe and beneficial environment, for both the WECS development and the adjacent properties, is provided (City of Desert Hot Springs 2018).

The Project as a whole would be considered consistent with the existing land use and zoning, which were used to develop the assumptions in the 2016 AQMP. Additionally, the Project would not directly or indirectly promote population growth or increase trips in the region because it would employ approximately the same number of people currently employed on the project site. Therefore, the Project would not exceed the assumptions of the 2016 AQMP. Accordingly, the Project would meet Consistency Criterion No. 2 of the SCAQMD CEQA Air Quality Handbook.

Summary

As described previously, the Project would not result in an increase in the frequency and severity of existing air quality violations and would not conflict with Consistency Criterion No. 1. Also, implementation of the Project would not exceed the demographic growth forecasts in the SCAG 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Therefore, the Project would also be consistent with the SCAQMD 2016 AQMP, which based future emission estimates on the population projections from SCAG, which are based on local jurisdictions' general plans, and the Project would not conflict with Consistency Criterion No. 2.

Therefore, no new or more severe impacts associated with the applicable air quality plan would occur, and the level of impact would be less than the level identified in the WECS 20 FEIR *(less-than-significant impact with mitigation incorporated)*. No new mitigation measures are required.

b) Would the project violate any air quality standard or contribute substantially to an existing or projected violation?

Short-Term Construction Emissions

Construction of the Project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment and soil disturbance) and off-site sources (i.e., on-road haul trucks, vendor trucks, and worker vehicle trips). Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated with a corresponding uncertainty in precise ambient air quality impacts. However, the AAQS are set at a level where a project would make a less than cumulatively considerable contribution to cumulative health impacts from air pollution.

Construction criteria air pollutant emissions associated with temporary construction activity were quantified using CalEEMod. Construction emissions were calculated for the estimated worst-case day over the construction period associated with each phase and reported as the maximum daily emissions estimated. Construction schedule assumptions, including phase type, duration, and sequencing, were based on information provided by the Project Applicant and are intended to represent a reasonable scenario based on the best information available. Default values provided in CalEEMod were used where detailed Project information was not available.

Implementation of the Project would generate air pollutant emissions from entrained dust, off-road equipment, and vehicle emissions. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM_{10} and $PM_{2.5}$ emissions. The Project would be required to comply with SCAQMD Rules 403 and 403.1 to control dust emissions generated during the grading activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active sites three times per day depending on weather conditions. The Project would also employ an off-road speed limit of 15 miles per hour. Internal combustion engines used by construction equipment, vendor trucks (i.e., delivery trucks), and worker vehicles would result in emissions of VOCs, NO_x, CO, PM_{10}, and $PM_{2.5}$.

Table 4.2-7 presents the estimated maximum daily construction emissions generated during construction of the Project with compliance with SCAQMD rules. The values shown are the maximum summer or winter daily emissions results from CalEEMod. Details of the emission calculations are provided in Appendix D.

Table 4.2-7
Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

Year	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
2018	7.27	67.92	43.81	0.09	19.43	6.20
2019	8.12	82.27	50.72	0.11	22.04	5.68
Maximum	**8.12**	**82.27**	**50.72**	**0.11**	**22.04**	**6.20**
SCAQMD Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: VOC = volatile organic compound; NOx = oxides of nitrogen; CO = carbon monoxide; SOx = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SCAQMD = South Coast Air Quality Management District
See Appendix D for complete results.
The values shown are the maximum summer or winter daily emissions results from CalEEMod. These emissions reflect CalEEMod "mitigated" output, which accounts for compliance with SCAQMD Rules 403 and 403.1 (Fugitive Dust), including watering of the Project site and unpaved roads three times per day, and restricting vehicle speed on unpaved roads to 15 miles per hour.

As shown in Table 4.2-7, daily construction emissions would not exceed the SCAQMD significance thresholds for VOC, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$ during construction. Construction-generated emissions would be temporary and would not represent a long-term source of criteria air pollutant emissions.

Therefore, no new or more severe short-term construction impacts associated with air quality standards would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR. No new mitigation measures are required.

Operational Emissions

The Project would not require an on-site O&M facility. The existing remote O&M facility would store critical spare wind turbine parts and provide a building for maintenance services. The remote facility includes permanent administrative, maintenance, and storage building structures.

No net increase in the number of people employed and working on the Project site would occur. Activities associated with long-term O&M were not quantified because they would not increase air emissions over what currently exists.

Future Decommissioning Emissions

The Project lifespan would be at least 30 years. When the proposed facility is decommissioned, the four wind turbines would be removed from the Project site and the materials would be reused or sold for scrap. Decommissioning activities are anticipated to result in similar intensity of impacts as those associated with the decommissioning of the existing wind turbines. For this reason, impacts associated with future

decommissioning of the Project's new wind turbines would be similar, if not nearly identical, to those impacts related to the decommissioning of the existing 69 wind turbines that are currently found on site.

Summary

The Project would be required to adhere to all relevant mitigation measures identified in the WECS 20 FEIR. No new or more severe long-term operational impacts associated with air quality standards would occur, and the level of impact would be less than the level identified in the WECS 20 FEIR *(less-than-significant impact with mitigation incorporated)*. No new mitigation measures are required.

c) 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 (including releasing emissions which exceed quantitative threshold emissions which exceed quantitative thresholds for ozone precursors)?

Air pollution is inherently a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the SCAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, Project-level thresholds of significance for criteria pollutants are relevant in the determination of whether a Project's individual emissions would have a cumulatively significant impact on air quality.

If a project's emissions would exceed the SCAQMD significance thresholds, it would be considered to have a cumulatively considerable contribution. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (SCAQMD 2003).

The SSAB has been designated as a federal and state nonattainment area for O_3 and PM_{10}. The nonattainment status is the result of cumulative emissions from various sources of air pollutants and their precursors within the SSAB including motor vehicles, off-road equipment, and commercial and industrial facilities. Construction of the Project would generate VOC and NO_x emissions (which are precursors to O_3) and emissions of PM_{10}. As indicated in Table 4.2-7, Project-generated construction emissions would not exceed the SCAQMD emission-based significance thresholds for VOC, NO_x, CO, SO_2, PM_{10}, or $PM_{2.5}$. Similarly, the Project would not generate an increase in emissions during operation.

In regards to cumulative impacts and the potential for cumulative localized impacts, future projects would be subject to CEQA and would require air quality analysis and, where necessary, mitigation if the project would exceed SCAQMD thresholds. Criteria air pollutant emissions associated with construction activity of future projects would be reduced through implementation of control measures required by the SCAQMD. Cumulative PM_{10} emissions would be reduced because all future projects would be subject to SCAQMD Rules 403 and 403.1 (Fugitive Dust), which set forth general and specific requirements for all construction sites in the SCAQMD.

Therefore, no new or more severe impacts associated with a cumulatively considerable net increase of any criteria pollutant would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR *(less-than-significant impact with mitigation incorporated)*. No new mitigation measures are required.

d) Would the project expose sensitive receptors to substantial pollutant concentrations?

Localized Significance Thresholds 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). The nearest sensitive-receptor land use (existing residents) is located approximately 250 feet from the closest area of disturbance. As discussed above, the LST receptor distance was assumed to be 164 feet (50 meters), which is a conservative assumption.

An 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, SCAQMD also recommends the evaluation of localized NO_2, CO, PM_{10}, 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 the 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 the Project construction is not expected to cause substantial air quality impacts to sensitive receptors along off-site roadways. Emissions from the trucks would be relatively brief in nature and would cease once the trucks pass through the main streets.

Construction activities associated with the Project would result in temporary sources of on-site fugitive dust and construction equipment emissions. Off-site emissions from vendor trucks, haul trucks, and worker vehicle trips are not included in the LST analysis. The maximum allowable daily emissions that would meet the SCAQMD localized significance criteria for SRA 30 are presented in Table 4.2-8 and compared to the maximum daily on-site construction emissions generated during the Project.

Table 4.2-8
Localized Significance Thresholds Analysis for Project Construction

Maximum On-Site Emissions	NO_2	CO	PM_{10}	$PM_{2.5}$
	Pounds per Day			
Construction Emissions	75.24	47.57	4.02	3.82
SCAQMD LST	*166*	*1,387*	*13*	*5*
LST Exceeded?	**No**	**No**	**No**	**No**

Source: SCAQMD 2009.
Notes: NO_2 = nitrogen dioxide; CO = carbon monoxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SCAQMD = South Coast Air Quality Management District; LST = localized significance threshold
See Appendix D for detailed results.
LSTs are shown for 1-acre project sites corresponding to a distance to a sensitive receptor of 50 meters.
These estimates reflect control of fugitive dust required by SCAQMD Rules 403 and 403.1, including watering of a project site and unpaved roads three times per day, and restricting vehicle speed on unpaved roads to 15 miles per hour.

As shown in Table 4.2-8, construction activities would not generate emissions in excess of site-specific LSTs.

Health Impacts of Toxic Air Contaminants

In addition to impacts from criteria pollutants, Project impacts may include emissions of pollutants identified by the state and federal government as TACs or hazardous air pollutants. State law has established the framework for California's TAC identification and control program, which is generally more stringent than the federal program and aimed at TACs that are a problem in California. The state has formally identified more than 200 substances as TACs, including the federal hazardous air pollutants, and is adopting appropriate control measures for sources of these TACs. The following measures are required by state law to reduce diesel particulate emissions:

- Fleet owners of mobile construction equipment are subject to the California Air Resources Board (CARB) Regulation for In-Use Off-Road Diesel Vehicles (Title 13 California Code of Regulations, Chapter 9, Section 2449), the purpose of which is to reduce DPM and criteria pollutant emissions from in-use (existing) off-road diesel-fueled vehicles.

- All commercial diesel vehicles are subject to Title 13, Section 2485, of the California Code of Regulations, limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading shall be limited to 5 minutes; electric auxiliary power units should be used whenever possible.

The greatest potential for TAC emissions during construction would be DPM emissions from heavy equipment operations and heavy-duty trucks during construction of the Project and the associated health impacts to sensitive receptors. The closest sensitive receptors would be residents approximately 250 feet away. As shown in Table 4.2-8, maximum daily particulate matter (PM_{10} or $PM_{2.5}$) emissions (DPM) generated by construction equipment operation and from hauling of soil during grading, combined with fugitive dust generated by equipment operation, would be well below the SCAQMD significance thresholds. The Project would also not emit any more TAC emissions during operation than produced under existing conditions.

Health Impacts of Carbon Monoxide

Mobile source impacts occur on two scales of motion. Regionally, Project-related travel during construction would add to regional trip generation and increase the vehicle miles traveled (VMT) within the local airshed and the SSAB. Locally, Project-generated traffic would be added to the City's roadway system near the Project site during construction. (As noted above, Project-related traffic during operations would be substantially the same as existing conditions.)

If Project-related construction traffic occurs during periods of poor atmospheric ventilation, is composed of a large number of vehicles "cold-started" and operating at pollution-inefficient speeds, and is operating on roadways already crowded with non-Project traffic, there is a potential for the formation of microscale CO hotspots in the area immediately around points of congested traffic. Because of continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SSAB is steadily decreasing.

The Project would have trip generation associated with construction worker vehicles and vendor trucks. Title 40 of the California Code of Regulations, Section 93.123(c)(5), Procedures for Determining Localized CO, PM_{10}, and $PM_{2.5}$ Concentrations (Hot-Spot Analysis), states that "CO, PM_{10}, and $PM_{2.5}$ hot-spot analyses are not required to consider construction-related activities, which cause temporary increases in emissions. Each site which is affected by construction-related activities shall be considered separately, using established 'Guideline' methods. Temporary increases are defined as those which occur only during the construction phase and last five years or less at any individual site." While Project construction would involve on-road vehicle trips from trucks and workers

during construction, construction activities would last approximately 13 months and would not require a Project-level construction hotspot analysis. Because the Project would not result in long-term operational vehicular trips, an operational CO hotspot evaluation is also not required.

Health Impacts of Other Criteria Air Pollutants

Construction and operation of the Project would result in emissions that would not exceed the SCAQMD thresholds for criteria air pollutants including VOC, CO, SO_x, $PM_{10,}$ or $PM_{2.5}$. VOCs would be associated with motor vehicles and construction equipment; however, Project-generated VOC emissions would not result in the exceedances of the SCAQMD thresholds as shown in Table 4.2-8.

VOCs and NO_x are precursors to O_3, for which the SSAB is designated as nonattainment with respect to the NAAQS and CAAQS. The health effects associated with O_3 are generally associated with reduced lung function. The contribution of VOCs and NO_x to regional ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the SSAB due to O_3 precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O_3 concentrations would also depend on the time of year that the VOC emissions would occur because exceedances of the O_3 AAQS tend to occur between April and October, when solar radiation is highest. The holistic effect of a single Project's emissions of O_3 precursors is speculative due to the lack of quantitative methods to assess this impact. Nonetheless, the VOC and NO_x emissions associated with Project construction could minimally contribute to regional O_3 concentrations and the associated health impacts. However, as emissions thresholds were not exceeded for either pollutant, health effects would be considered less than significant.

Construction of the Project would also not exceed thresholds for PM_{10} and would not contribute to exceedances of the NAAQS and CAAQS for particulate matter, nor would it obstruct the SSAB from coming into attainment for these pollutants. The Project would also not result in substantial DPM emissions during construction and, therefore, would not result in significant health effects related to DPM exposure. Additionally, the Project would be required to comply with SCAQMD Rules 403 and 403.1, which limit the amount of fugitive dust generated during construction. Due to the minimal contribution of particulate matter during construction, health impacts would be considered less than significant.

Construction of the project would not contribute to exceedances of the NAAQS and CAAQS for NO_2. Health impacts that result from NO_2 and NO_x include respiratory irritation, which could be experienced by nearby receptors during the periods of heaviest

use of off-road construction equipment. However, Project construction would be relatively short term, and off-road construction equipment would be operating at various portions of the Project and would not be concentrated in one portion of the site at any one time. In addition, existing NO_2 concentrations in the area are well below the NAAQS and CAAQS standards. Construction of the Project would not require use of any stationary sources that would create substantial, localized NO_x impacts.

CO tends to be a localized impact associated with congested intersections. The associated potential for CO hotspots were discussed previously and are determined to be a less-than-significant impact. Thus, the Project's CO emissions would not contribute to significant health effects associated with this pollutant. In summary, construction of the Project would not result in exceedances of the SCAQMD significance thresholds for all criteria pollutants.

Exposure to Valley Fever

Valley fever is not highly endemic to Riverside County, and within Riverside County the incidence rate in Desert Hot Springs is very low, accounting for only 0.9% of Riverside County's incidents in 2015 (Riverside University Health System Public Health 2016). The Project would employ dust mitigation measures by watering three times per day and limiting speed on unpaved roads to 15 miles per hour. The Project would also be constructed in accordance with SCAQMD Rules 403 and 403.1, which limit the amount of fugitive dust generated during construction. As previously mentioned, the nearest sensitive-receptor land use (existing residents) is located approximately 250 feet from the closest area of disturbance and, with dust mitigation measures and compliance with SCAQMD rules, it is unlikely that dust from Project construction would reach the nearest sensitive receptor. Therefore, the Project would have a less-than-significant impact with respect to valley fever exposure for sensitive receptors.

Summary

Therefore, no new or more severe impacts associated with exposing sensitive receptors to substantial pollutant concentrations, including dust, would occur, and the level of impact would be less than the level identified in the WECS 20 FEIR (less-than-significant impact with mitigation incorporated). No new mitigation measures are required.

e) Would the project create objectionable odors affecting a substantial number of people?

The occurrence and severity of potential odor impacts depends on numerous factors: The nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although

offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints.

Odors would be potentially generated from vehicles and equipment exhaust emissions during construction of the Project. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment. Such odors would be temporary and would disperse rapidly from the Project site and generally occur at magnitudes that would not affect substantial numbers of people.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). The Project would not create any new sources of odor during operation.

Therefore, no new or more severe impacts associated with creating objectionable odors would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR (less-than-significant impact). No new mitigation measures are required.

4.2.5 Cumulative Impacts

The geographic scope of the cumulative air quality analysis is the SSAB.

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the SCAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, Project-level thresholds of significance for criteria pollutants are relevant in the determination of whether a Project's individual emissions would have a cumulatively significant impact on air quality.

If a project's emissions would exceed the SCAQMD significance thresholds, it would be considered to have a cumulatively considerable contribution. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (SCAQMD 2003). As indicated in Table 4.2-8, Project-generated construction emissions would not exceed the SCAQMD emission-based significance thresholds for VOC, NO_x, CO, SO_2, PM_{10}, or $PM_{2.5}$. Similarly, the Project would not generate an increase in emissions from existing conditions during operation.

In regards to cumulative impacts and the potential for cumulative localized impacts, future projects would be subject to CEQA and would require air quality analysis and, where necessary, mitigation if the project would exceed SCAQMD thresholds. Criteria air pollutant emissions associated with construction activity of future projects would be reduced through implementation of control measures required by the SCAQMD. Cumulative PM_{10} emissions would be reduced

because all future projects would be subject to SCAQMD Rules 403 and 403.1 (Fugitive Dust), which set forth general and specific requirements for all construction sites in the SCAQMD. Therefore, the Project's contribution to impacts associated with air quality would not be cumulatively considerable.

4.2.6 Mitigation Measures

As previously discussed, assuming compliance with existing SCAQMD rules, implementation of the Project would result in less than significant impacts and no further mitigation is required. Notwithstanding, in an effort to further minimize the already less than significant impacts, the Project would be required to comply with the following applicable air quality mitigation measures adopted by the City of Desert Hot Springs as part of the WECS 20 FEIR. Since the approval of the WECS 20 FEIR, several of these mitigation measures are now required by the SCAQMD or by CVAG ordinance.

MM-AQ-12 Prior to the commencement of any demolition, grading, or construction activities, the Project applicant will prepare and submit for City Engineer Department review and approval a Fugitive Dust (PM_{10}) Mitigation Plan.

MM-AQ-13 Traffic speeds of no greater than 15 miles per hour would be observed on all unpaved roadways.

MM-AQ-14 All grading operations would be suspended when wind speed (as instantaneous gusts) exceeds 25 miles per hour.

MM-AQ-15 Trucks importing and/or exporting soil or other loose material would be covered and/or watered down prior to entering public streets to minimize potential fugitive dust.

MM-AQ-16 Soil binders would be spread on unpaved roads and parking areas, and/or AQMD approved soil stabilizers would be applied according to manufacturer's specifications to all inactive construction areas (previously graded areas that remain inactive for 96 hours).

MM-AQ-17 SCAQMD Rule 403 shall be adhered to, ensuring the clean-up of construction related dirt on approach routes to the site.

4.2.7 Significance After Mitigation

With the incorporation of all applicable mitigation measures identified in the WECS 20 FEIR, no new or more severe impacts associated with air quality would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR. No new mitigation measures are required.

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4.3 BIOLOGICAL RESOURCES

This section describes the existing biological resources and setting within the Project area, identifies applicable regulatory requirements, evaluates potential impacts compared to impacts identified in the WECS 20 Permit Project Final Environmental Impact Report (WECS 20 FEIR), and identifies mitigation measures related to implementation of the Desert Hot Springs Wind Energy Repowering Project (Project).

In addition to the documents incorporated by reference (see Section 2.8 of Chapter 2 of this Draft Supplemental Environmental Impact Report [SEIR]), the following analysis is based on the following sources, which are found in Appendix E of this Draft SEIR:

- April 2019 Biological Resources Assessment and Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) Consistency Analysis for the Desert Hot Springs Wind Energy Repowering Project prepared by LSA (Appendix E-1)
- July 2013 Golden Eagle (*Aquila chrysaetos*) Survey Report for the West of Devers Upgrade Project in Riverside and San Bernardino Counties, California, prepared by Wildlife Research Institute, Inc. (Appendix E-2)

4.3.1 Existing Conditions

Existing Site Conditions

Topography and Soils

The Survey Area (Figure 4.3-1, Preliminary Site Plan) (the area of proposed disturbance within the Project site including a buffer) is situated on sandy and rocky mountain ridges, and ranges in elevation from approximately 1,400 feet to 2,000 feet above mean sea level. A mosaic of soils occurs within the Survey Area and is mapped by the Soil Conservation Service (USDA 1980) as the following types:

- Carsitas Gravelly Sand, 0% to 9% slopes
- Carsitas Fine Sand, 0% to 5% slopes
- Chuckwalla Cobbly Fine Sandy Loam, 9% to 30% slopes
- Lithic Torripsamments-Rock Outcrop Complex

Vegetation

Vegetation within the Survey Area is described as Creosote Bush Scrub (*Larrea tridentata*) Shrubland Alliance (Sawyer et al. 2009) (Figure 4.3-2, Vegetation, Land Use, and Photograph Key

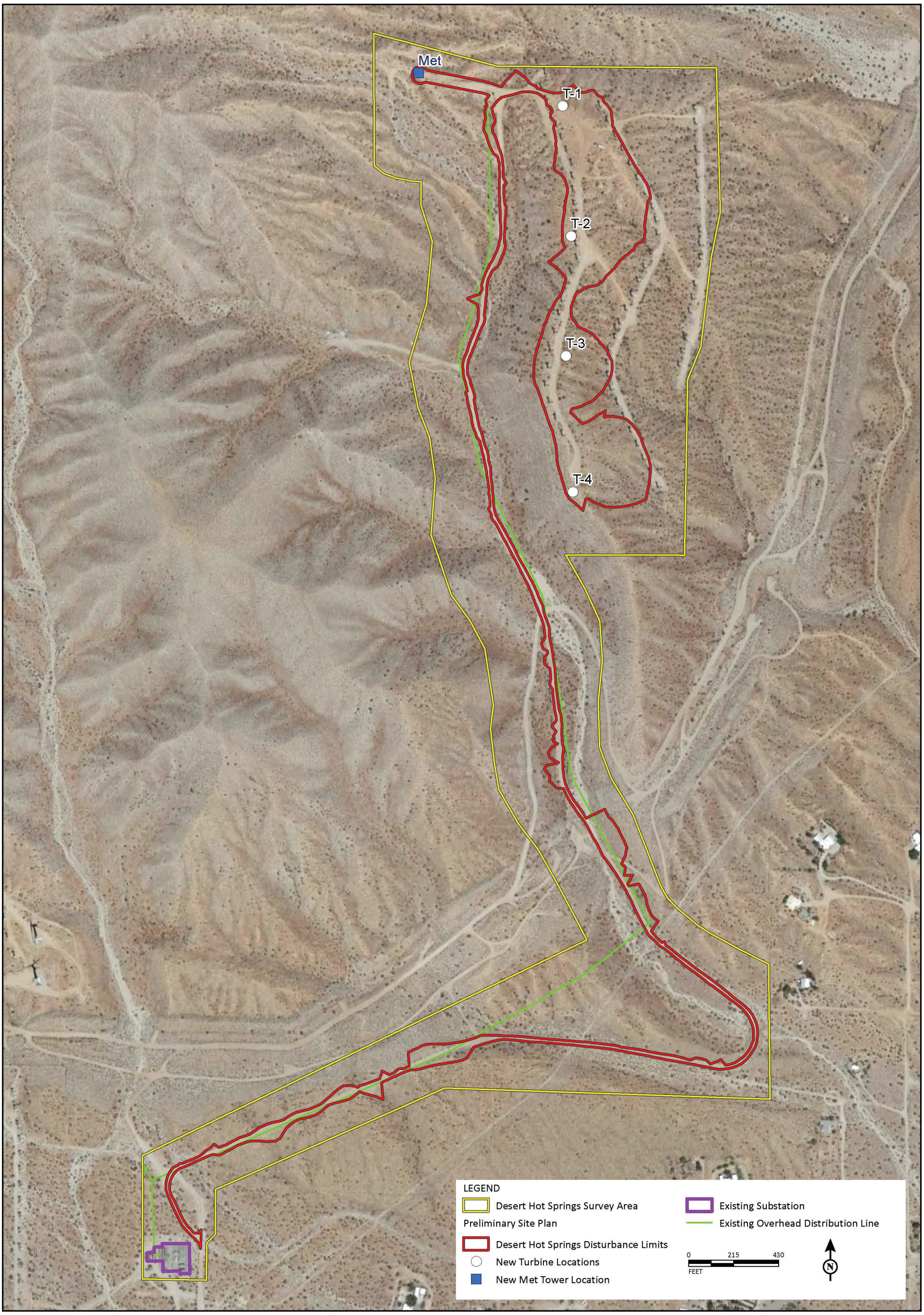
Location Map). Dominant species include creosote bush, white bur-sage (*Ambrosia dumosa*), and brittle bush (*Encelia farinosa*).

Special-Status Species

This section discusses special-status species observed or potentially occurring within the limits of the Survey Area. Legal protection for special-interest species varies widely, from the comprehensive protection extended to listed threatened/endangered species, to no legal interest at present. The California Department of Fish and Wildlife (CDFW), U.S. Fish and Wildlife Service (USFWS), local agencies, and special-interest groups such as the California Native Plant Society (CNPS) publish watch lists of declining species. Species on watch lists can be included as part of the special-interest species assessment. Species that are candidates for state and/or federal listing and species on watch lists are included in the special-interest species list. Inclusion of species described in the special-interest species analysis is based on the following criteria:

- Direct observation of the species or its sign in the Survey Area or immediate vicinity during previous biological studies
- Sighting by other qualified observers
- Record reported by the California Natural Diversity Database, published by the CDFW
- Presence or location information for specific species provided by private groups (e.g., CNPS)
- Survey Area lies within known distribution of a given species and contains appropriate habitat

The special-interest species analysis revealed 44 special-interest species with the potential to occur within the limits of the Survey Area. The Biological Resources Assessment and CVMSHCP Consistency Analysis (Appendix E-1) includes a list of these species with a data summary and determination of the likelihood of each species occurring in the Survey Area.



SOURCE: LSA

FIGURE 4.3-1

Preliminary Site Plan

Desert Hot Springs Wind Energy Repowering Project

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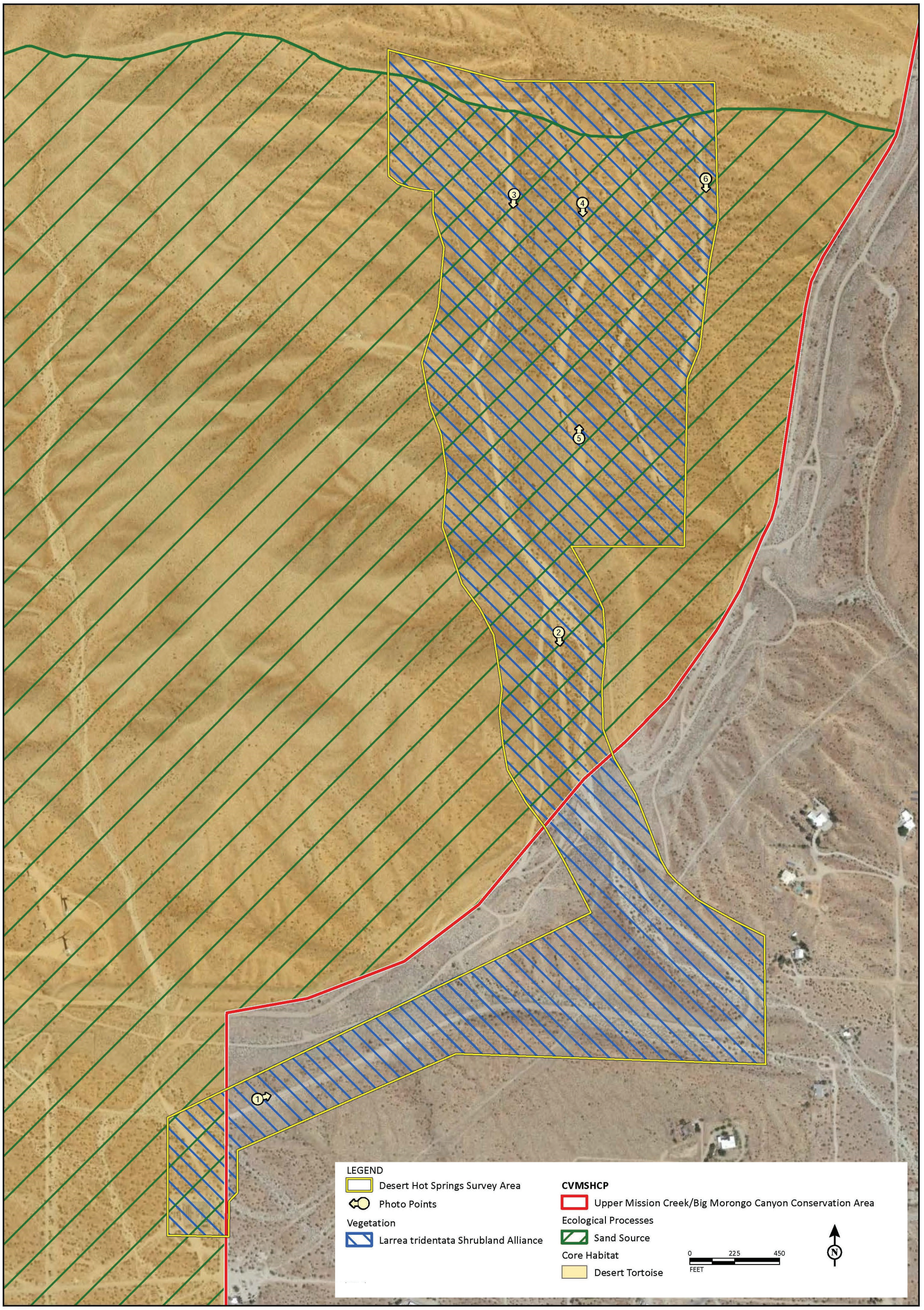

SOURCE: LSA

FIGURE 4.3-2

Vegetation, Land Use, and Photograph Key Location Map

Desert Hot Springs Wind Energy Repowering Project

DUDEK

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Threatened/Endangered Species

The following 12 federally/state-listed species and candidates for listing, including three California fully protected species, were identified as potentially present in the Project vicinity:

- Coachella Valley milkvetch (*Astragalus lentiginosus* var. *coachellae*): federally listed endangered and CVMSHCP Covered Species
- Triple-ribbed milk vetch (*Astragalus tricarinatus*): federally listed endangered and CVMSHCP Covered Species
- Slender-horned spineflower (*Dodecahema leptoceras*): federally and state-listed endangered
- Casey's June beetle (*Dinacoma caseyi*): federally listed endangered
- California red-legged frog (*Rana draytonii*): federally listed threatened
- Sierra Madre yellow-legged frog (*Rana muscosa*): federally and state-listed endangered
- Desert tortoise (*Gopherus agassizii*): federally and state-listed threatened and CVMSHCP Covered Species
- Coachella Valley fringe-toed lizard (*Uma inornata*): federally listed threatened, state-listed endangered, and CVMSHCP Covered Species
- Golden eagle (*Aquila chrysaetos*): California fully protected species
- Least Bell's vireo (*Vireo bellii pusillus*): federally and state-listed endangered and CVMSHCP Covered Species
- Peninsular bighorn sheep (*Ovis canadensis nelsonii*) (peninsular Distinct Population Segment): federally listed endangered and state-listed threatened, California fully protected species, and CVMSHCP Covered Species
- Desert bighorn sheep (*Ovis canadensis nelson*) (excluding peninsular Distinct Population Segment): California fully protected species

For the reasons outlined in the Special-Status Species Summary included in Appendix E-1, habitat within the Survey Area is considered unsuitable for the slender-horned spineflower, Casey's June beetle, California red-legged frog, Sierra Madre yellow-legged frog, Coachella Valley fringe-toed lizard, least Bell's vireo, and peninsular bighorn sheep. The Survey Area provides moderate quality habitat for desert tortoise and low-quality habitat for Coachella Valley milkvetch, triple-ribbed milkvetch, and desert bighorn sheep. Additionally, low-quality foraging habitat for the golden eagle is present within the Survey Area.

Non-Listed Special-Interest Species

Of the 33 other non-listed special-interest species identified and discussed in Appendix E-1, nine are considered absent based on lack of suitable habitat, 18 are considered to have a low probability of occurrence, and six species are considered to have a moderate probability of occurrence. The following non-listed special-interest species have a moderate probability to occur within the Survey Area:

- Desert beardtongue (*Penstemon pseudospectabilis* ssp. *pseudospectabilis*)
- Orangethroat whiptail (*Aspidoscelis hyperythra*)
- Burrowing owl (*Athene cunicularia*)
- Prairie falcon (*Falco mexicanus*)
- Loggerhead shrike (*Lanius ludovicianus*)
- Le Conte's thrasher (*Toxostoma lecontei*)
- Palm Springs pocket mouse (*Perognathus longimembris bangsii*)

Nesting bird species, including special-interest species identified in Appendix E-1, with potential to occur (i.e., prairie falcon, burrowing owl, and loggerhead shrike) are protected by California Fish and Game Code Sections 3503, 3503.5, and 3800, and by the Migratory Bird Treaty Act (MBTA) (16 USC 703–712).

Avian Species

An Avian Use memo was prepared by CH2M Hill in 2011 that analyzed avian use and mortality studies for the Project area. The memo concluded the following: due to the Project's location within the San Gorgonio Pass in a mid-elevation area, the Project's proximity to recently studied sites with estimated low avian risks, the siting of wind turbines away from open water and riparian vegetation, and the use of a tubular monopole tower design that eliminates perching attractants associated with lattice structures and guy wires, the Project is designed to avoid impacts to avian species.

In order to comply with USFWS survey recommendations, golden eagle occupancy and productivity surveys were conducted in 2011 within a 10-nautical-mile spatial buffer of the Project site (see Appendix E-2).

Six golden eagle nests, composing three territories, were documented with core nesting areas within the Project's spatial buffer; two (Little San Bernardino Mountains – W and San Jacinto Mountains – NE) were documented to be active for the 2011 breeding season, one of which (San Jacinto Mountains – NE) produced a total of two young. Furthermore, during additional surveys, three golden eagles, an American kestrel (*Falco sparverius sparverius*), 13 bighorn

sheep (*Ovis canadensis*), 35 common ravens (*Corvus corax*), four great horned owls (*Bubo virginianus*), two peregrine falcons (*Falco peregrinus*), three prairie falcons, 13 red-tailed hawks (*Buteo jamaicensis*), seven Swainson's hawks (*Buteo swainsoni*), a turkey vulture (*Cathartes aura*), and an unidentified falcon (*Falco* sp.) were observed, comprising a total of 83 unique wildlife documentations.

Additional golden eagle surveys were conducted in 2013 by Wildlife Research Institute, Inc. (WRI) (see Appendix E-2) that encompassed the Desert Hot Springs Survey Area for Southern California Edison's West of Devers Upgrade Project, which is located approximately one mile south of the Desert Hot Springs Survey Area and encompassed the Project's Survey Area.

The primary part of the 2013 survey area included approximately 2,000 square kilometers encompassed by the golden eagle spatial buffer that extended four nautical miles from the linear project alignment. Additionally, WRI surveyed any nearby nesting habitat outside the spatial buffer that was suitable golden eagle habitat or was a known golden eagle territory based on previous WRI research. WRI recorded 14 golden eagle nests that composed 7 territories; one nest in one territory (Soboba Hills N) within the four-nautical-mile golden eagle spatial buffer was active and produced two chicks. Of the remaining six territories outside of the four-nautical-mile golden eagle spatial buffer, two were active and produced a total of three chicks (Soboba Hills E, Whitewater Canyon), two were active but not productive (Coal Canyon, Little San Bernardino Mountains), and two were found to be not active (Allen Peak, San Jacinto Mountains).

During the 2013 surveys, a total of 12 golden eagles (adults, chicks, and/or eggs) and 12 other wildlife species (i.e., American kestrel, barn owl [*Tyto alba*], Cooper's hawk [*Accipiter cooperii*], common raven, great horned owl, mule deer [*Odocoileus hemionus*], northern harrier [*Circus cyaneus*], peregrine falcon, prairie falcon, red-tailed hawk, Swainson's hawk and turkey vulture) were observed, totaling 316 wildlife documentations.

Post construction mortality surveys on nearby projects have not revealed any reported golden eagle use or mortality, which suggests that the Project poses a low collision risk to eagles. Desert Hot Springs Wind, LLC (Project Applicant) has voluntarily included in its project plans three years of post-construction monitoring and has voluntarily prepared a Bird and Bat Conservation Strategy Plan which includes eagle use surveys. No significant impacts are anticipated, but if a golden eagle were found to be present during the post-construction monitoring, the Applicant would notify USFWS and coordinate mitigation and permitting requirements.

Jurisdictional Waters

The U.S. Army Corps of Engineers (USACE) regulates discharges of dredged or fill material into waters of the United States. These waters include wetlands and non-wetland bodies of water that meet specific criteria, including a direct or indirect connection to interstate commerce. The USACE

regulatory jurisdiction pursuant to Section 404 of the federal Clean Water Act (CWA) is founded on a connection, or nexus, between the water body in question and interstate commerce. This connection may be direct (through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce), or it may be indirect (through a nexus identified in the USACE regulations). In addition to jurisdiction over waters of the United States, USACE also has jurisdiction over wetlands. In order to be considered a jurisdictional wetland under Section 404, an area must possess three wetland characteristics, each with its unique set of mandatory wetland criteria: hydrophytic vegetation, hydric soils, and wetland hydrology.

CDFW, under Sections 1600 through 1616 of the California Fish and Game Code, regulates alterations to lakes, rivers, and streams (defined by the presence of a channel bed and banks and at least an intermittent flow of water) where fish or wildlife resources may be adversely affected.

The Regional Water Quality Control Board (RWQCB) is responsible for the administration of Section 401 of the CWA. Typically, the areas subject to jurisdiction of the RWQCB coincide with those of the USACE (i.e., waters of the United States, including any wetlands). The RWQCB may also assert authority over "waters of the state" under waste discharge requirements pursuant to the State Porter-Cologne Water Quality Control Act (Porter-Cologne Act).

The Biological Resources Assessment and CVMSHCP Consistency Analysis (Appendix E-1) contains the detailed results of the jurisdictional delineation and assessment of jurisdictional waters prepared for the Project. Based on the results of the wetlands delineation/jurisdictional assessment, a total of approximately 1.55 acres of potential USACE non-wetland waters of the United States and approximately 1.96 acres of potential CDFW streambed occur within the Survey Area (Figures 4.3-3A through 4.3-3E).

Coachella Valley Multiple Species Habitat Conservation Plan

The CVMSHCP is a comprehensive, multi-jurisdictional habitat conservation plan focusing on conservation of species and their associated habitats in the Coachella Valley region of Riverside County (CVAG 2016). The overall goal of the CVMSHCP is to maintain and enhance biological diversity and ecosystem processes within the region, while allowing for future economic growth. The CVMSHCP covers 27 sensitive plant and wildlife species (Covered Species) and 27 natural communities. Covered Species include both listed and non-listed species that are adequately conserved by the CVMSHCP. The overall provisions for the plan are subdivided according to specific resource conservation goals that have been organized according to geographic areas defined as conservation areas. These areas are identified as for sensitive plant, invertebrate, amphibian, reptile, bird, and mammal species, and include the following:

- Core Habitat: The areas identified in the CVMSHCP for a given species that are composed of a Habitat patch or aggregation of Habitat patches that (1) are of sufficient size to support a self-

sustaining population of that species, (2) are not fragmented in a way to cause separation into isolated populations, (3) have functional Essential Ecological Processes, and (4) have effective Biological Corridors and/or Linkages to other habitats, where feasible, to allow gene flow among populations and to promote movement of large predators.

- Essential Habitat: Certain lands delineated in the Recovery Plan for Bighorn Sheep in the Peninsular Ranges, California (USFWS 2000).
- Other Conserved Habitat: Part of a conservation area that does not contain Core Habitat for a given species, but which still has conservation value. These values may include Essential Ecological Processes, Biological Corridors, Linkages, buffering from edge effects, enhanced species persistence probability in proximate Core Habitat, genetic diversity, recolonization potential, and flexibility in the event of long-term habitat change.
- Essential Ecological Process Areas: Processes that maintain specific habitat types and are necessary to sustain the habitat (in a state usable by Covered Species). Essential Ecological Processes may include abiotic hydrological processes (both subsurface and surface), erosion, deposition, blow-sand movement, substrate development and soil formation, and disturbance regimes such as flooding and fire; and biotic processes such as reproduction, pollination, dispersal, and migration.
- Biological Corridors: Wildlife movement area that is constrained by existing development, freeways, or other impediments.
- Biological Linkages: Habitat that provides for the occupancy of Covered Species and their movement between larger blocks of habitat over time, potentially over a period of generations. In general, Biological Linkages are large enough to include adequate habitat to support small populations of the species and, thus, do not require that an individual of the species transit the entire Biological Linkage to maintain gene flow between populations. What functions as a Biological Linkage for one species may provide only a Biological Corridor or no value for other species.

Each conservation area has specific conservation objectives that must be satisfied. Those Conservation Objectives include how the CVMSHCP will accomplish the protection of Core Habitat Essential Ecological Processes, Biological Corridors, and Linkages in the CVMSHCP Reserve System to ensure that the covered species are adequately conserved. The conservation area conservation goals are also designed to ensure the persistence of natural communities. The Project is a covered activity under Section 7.3.1 of the CVMSHCP (CVAG 2016).

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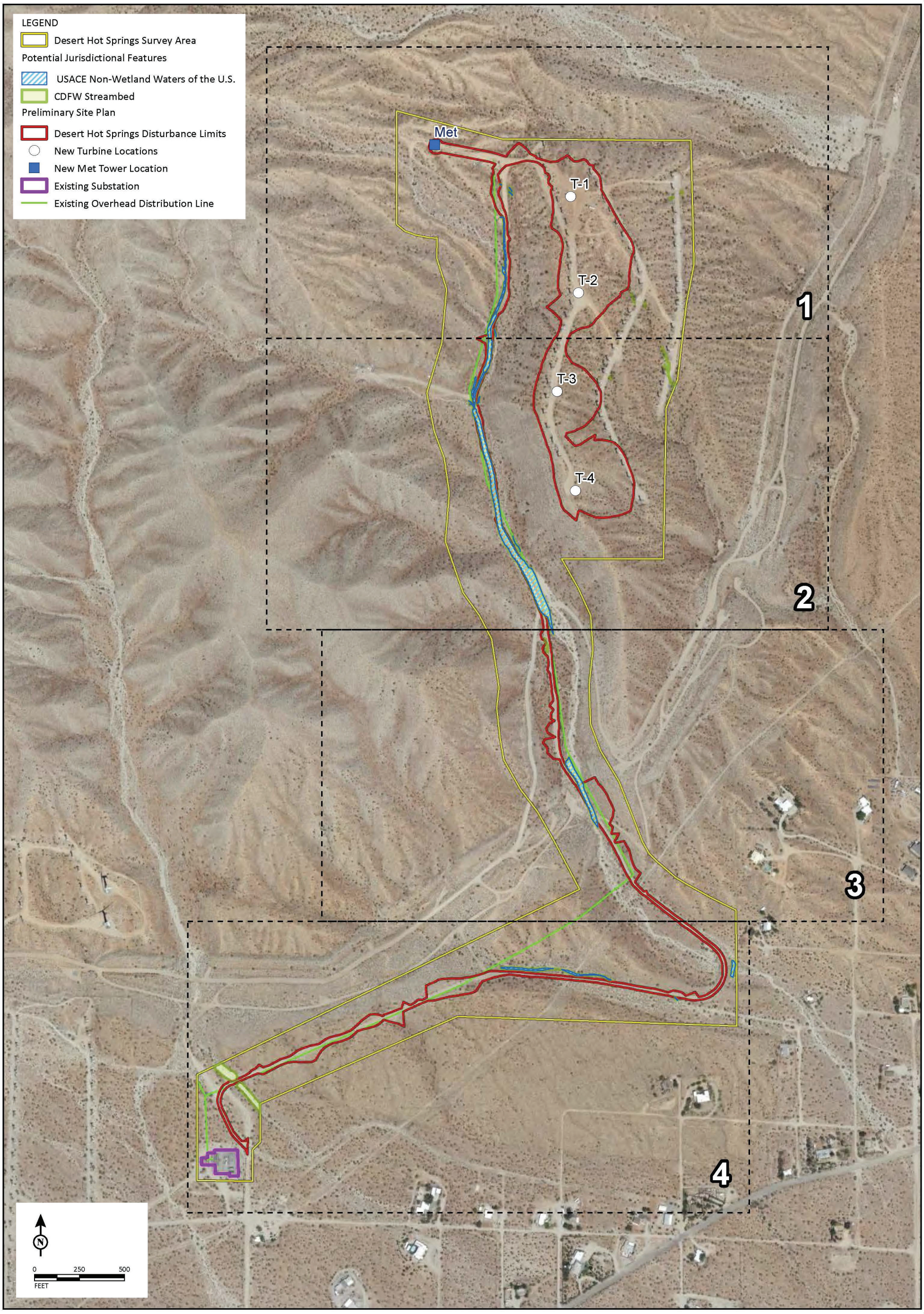

SOURCE: LSA

FIGURE 4.3-3A
Overview Map
Desert Hot Springs Wind Energy Repowering Project

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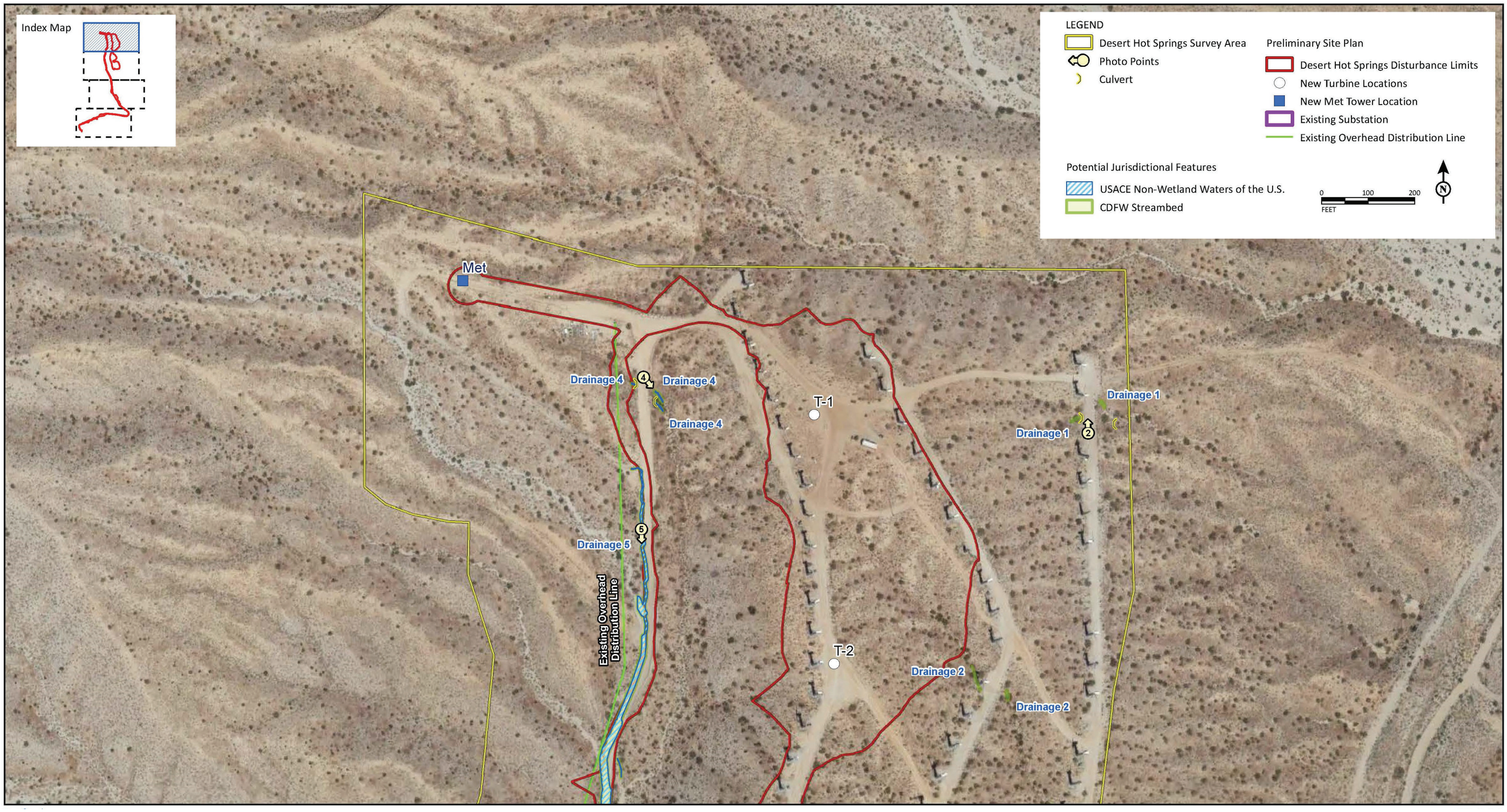

SOURCE: LSA

FIGURE4.3-3B

Potential Jurisdictional Waters and Photograph Locations

Desert Hot Springs Wind Energy Repowering Project

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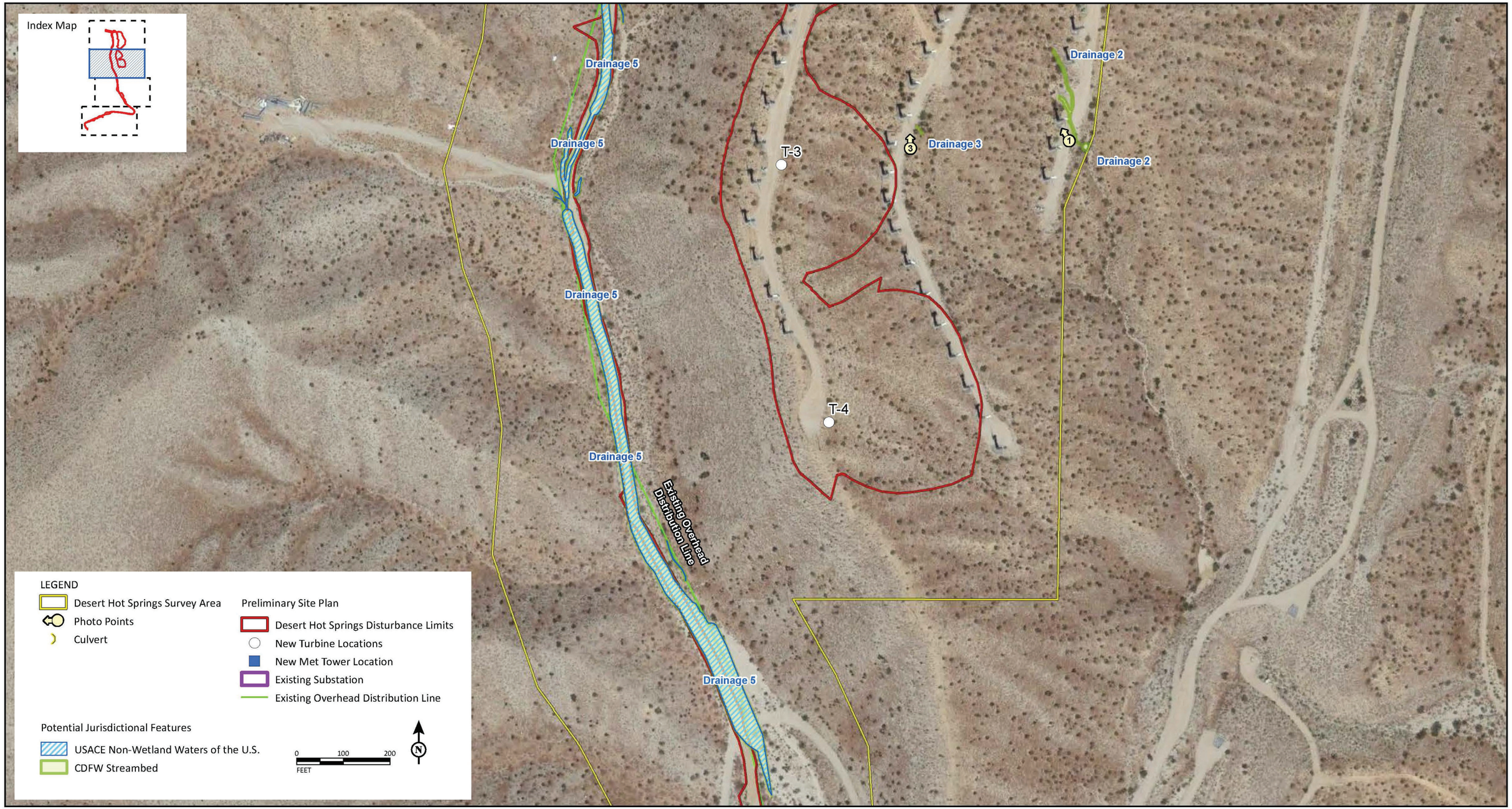

SOURCE: LSA

FIGURE4.3-3C

Potential Jurisdictional Waters and Photograph Locations

Desert Hot Springs Wind Energy Repowering Project

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Index Map

Drainage 6

Drainage 5

Existing Overhead Distribution Line

LEGEND

Desert Hot Springs Survey Area
Photo Points
Culvert

Preliminary Site Plan

Desert Hot Springs Disturbance Limits
New Turbine Locations
New Met Tower Location
Existing Substation
Existing Overhead Distribution Line

Potential Jurisdictional Features

USACE Non-Wetland Waters of the U.S.
CDFW Streambed

0 100 200
FEET

N

SOURCE: LSA

FIGURE4.3-3D

Potential Jurisdictional Waters and Photograph Locations

Desert Hot Springs Wind Energy Repowering Project

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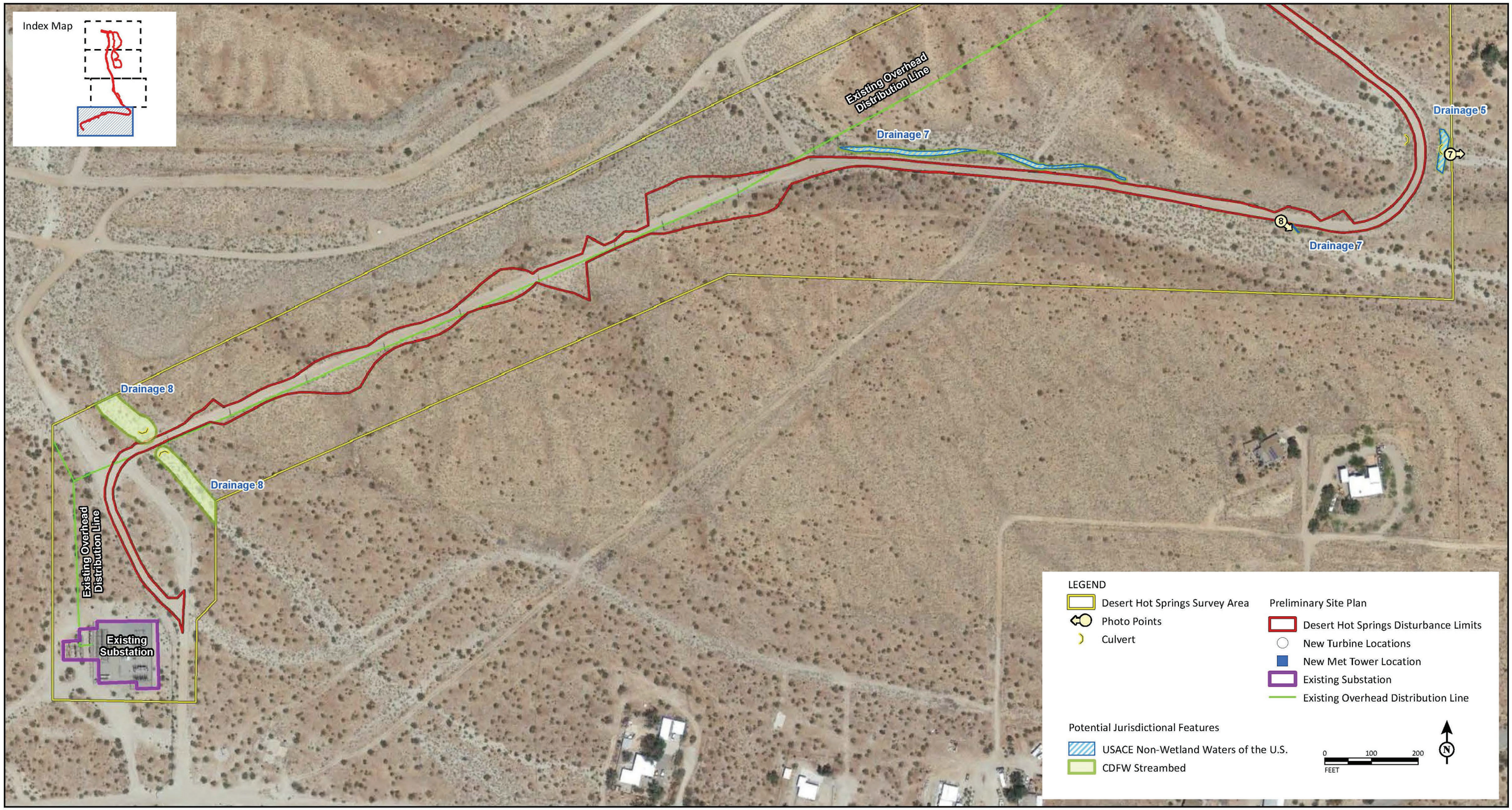

SOURCE: LSA

FIGURE4.3-3E

Potential Jurisdictional Waters and Photograph Locations

Desert Hot Springs Wind Energy Repowering Project

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CVMSHCP Upper Mission Creek/Big Morongo Canyon Conservation Area

The Project and Survey Area both lie entirely within the boundaries of the CVMSHCP. Some 95 acres of the Survey Area lie within the CVMSHCP Upper Mission Creek/Big Morongo Canyon Conservation Area (Conservation Area). Table 4.3-1 provides a summary of the Project's total disturbances within the Conservation Area. The Project's CVMSHCP Joint Project Review (JPR) defines total disturbances as both permanent and temporary disturbances.

Table 4.3-1
Total Project Disturbance Within the Conservation Area

Conservation Areas	Permanent Impacts (acres)
Upper Mission Creek/Big Morongo Canyon Conservation Area	20

Source: Appendix E-1.

Core Habitat and Essential Ecological Processes are discussed below as they pertain to the Project.

Core Habitat

Core Habitat for desert tortoise lies within the Survey Area. The population of desert tortoise within the Conservation Area is considered to be connected to a larger viable population stretching southwest into the Whitewater Canyon Conservation Area and eastward through the Little San Bernardino Mountains into the Joshua Tree National Park Conservation Area.

The CVMSHCP conservation objective for Core Habitat within this Conservation Area includes conservation of at least 2,271 acres of Core Habitat for desert tortoise in the Desert Hot Springs portion of the area and at least 7,936 acres in the unincorporated portion of Riverside County. Individual tortoises shall be protected within the area when allowed development occurs.

Per the CVMSHCP, because the Survey Area contains potentially suitable habitat for desert tortoise, a pre-construction survey for this species will be required prior to any ground-disturbing activities. Because the Project may affect desert tortoise, a streamlined federal Endangered Species Act (FESA) Section 7 consultation in accordance with the CVMSHCP is recommended for potential Project-related effects to desert tortoise. During construction-related activities, contractors will comply with the mitigation and minimization measures contained in the CVMSHCP protocol.

Essential Ecological Processes

Sand source that provides blow-sand to the Willow Hole Preserve and, to some extent, to the Whitewater Floodplain Preserve is present within the Survey Area. The CVMSHCP conservation objective for sand source within this Conservation Area includes conservation of at least 141 acres of

the sand source areas in the Desert Hot Springs portion of the Conservation Area and at least 6,488 acres in the unincorporated portion of Riverside County subject to natural erosion processes.

Per the Project's final JPR, the Project's total acres of sand source disturbance within the Upper Mission Creek/Big Morongo Canyon Conservation Area is 7.25 acres. Although the 7.25 acres of disturbance exceeds the acres of disturbance authorized by the CVMSHCP (5.50 acres) within the Conservation Area, the Project Applicant will either restore disturbances and deed undeveloped land within the Survey Area at a 1:1 ratio, or will deed undeveloped land within the Survey Area at a 9:1 ratio to offset disturbance to sand source.

4.3.2 Relevant Plans, Policies, and Procedures

Federal

Federal Endangered Species Act

The FESA of 1973 provides definitions for endangered species and threatened species of the United States. Under provisions of FESA Section 9(a)(1)(B)**,** it is unlawful to "take" any listed species. "Take" is defined in FESA Section 3(18) as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, USFWS, through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification that result in injury to or death of species as forms of "take." In a case where a property owner seeks permission from a federal agency for an action that could affect a federally listed plant or animal species, the property owner and agency are required to consult with USFWS. FESA Section 9(a)(2)(b) addresses the protections afforded to listed plants.

FESA Section 7 stipulates that any federal action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat (16 USC 1536[a][2]).

In 1982, FESA was amended to give private landowners the ability to develop Habitat Conservation Plans pursuant to FESA Section 10(a). Upon development of a Habitat Conservation Plan, USFWS can issue incidental take permits for listed species where the Habitat Conservation Plan specifies, at minimum, the following: (1) the level of impact that will result from the taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan.

Waters of the United States

The USACE regulates discharges of dredged or fill material into waters of the United States. These waters include wetland and non-wetland bodies of water that meet specific criteria. USACE regulatory jurisdiction pursuant to Section 404 of the federal CWA is founded on a connection, or nexus, between the water body in question and interstate commerce. This connection may be direct (through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce) or may be indirect (through a nexus identified in USACE regulations). For several decades the operable definition of waters of the United States was provided at 33 Code of Federal Regulations (CFR) 328.3, but implementation of this definition has been shaped by the courts and subsequent guidance over the years, most substantially by the 2001 Supreme Court decision in *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers*, No. 99-1178 and the 2006 Supreme Court decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States* (126 S. Ct. 2208), collectively referred to as Rapanos. The Supreme Court concluded that wetlands are "waters of the United States" if they significantly affect the chemical, physical, and biological integrity of other covered waters more readily understood as navigable. Based, in part, on the Rapanos decision, a new rule defining waters of the United States was promulgated in the Federal Register on June 29, 2015. Following a series of legal challenges and the current presidential administration's attempt to delay the implementation of this rule, on August 16, 2018, the U.S. District Court for the District of South Carolina enjoined the delay of the Waters of the United States Rule implementation for failure to comply with the Administrative Procedure Act. This decision means that the 2015 waters of the United States definition is in effect in 26 states where federal district court judges have not stayed it, including California. A summary of the currently operable definition of waters of the United States is provided below:

Several categories of waters are defined as waters of the United States directly by the Rule, without the need for a significant nexus evaluation:

> (i) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
>
> (ii) All interstate waters, including interstate wetlands;
>
> (iii) The territorial seas;
>
> (iv) All impoundments of waters otherwise identified as waters of the United States under this section;

(v) All tributaries of waters identified in paragraphs (1)(i) through (iii) of this definition; tributary is further defined as a water that contributes flow, either directly or through another water to a water identified in paragraphs (i) through (iii) of this definition that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark;

(vi) All waters adjacent to a water identified in paragraphs (i) through (v) of this definition, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters; he term adjacent means bordering, contiguous, or neighboring a water identified above, including waters separated by constructed dikes or barriers, natural river berms, beach dunes, and the like. Neighboring includes waters within 100 feet of the ordinary high water mark of these waters and within the 100-year flood plain but not more than 1,500 feet from the ordinary high water mark. Neighboring also includes waters within 1,500 of waters in paragraphs i through iii, including the Great Lakes.

In addition to the waters defined as waters of the United States by rule, above, two categories of waters can be considered waters of the United States pursuant to a significant nexus evaluation and determination:

(vii) Certain depressional wetlands where they are determined, on a case specific basis, to have a significant nexus to a water identified in paragraphs (1)(i) through (iii) of this definition. The waters identified in this category are considered similarly situated and shall be combined, for purposes of a significant nexus analysis, in the watershed that drains to the nearest water identified in paragraphs (1)(i) through (iii) of this definition. Waters identified in this paragraph shall not be combined with waters identified in paragraph (vi) of this definition when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (vi), they are an adjacent water and no case-specific significant nexus analysis is required. The depressional wetlands that are specifically identified in this paragraph occur in various regions throughout the country. In California they include (D) Western vernal pools. Western vernal pools are seasonal wetlands located in parts of California and associated with topographic depression, soils with poor drainage, mild, wet winters and hot, dry summers.

(viii) All waters located within the 100-year floodplain of a water identified in paragraphs (i) through (iii) of this definition and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (i) through (v) of this definition where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (i) through (iii) of this definition. For waters determined to have a significant nexus, the entire water is a water of the United States if a portion is located within the 100-year floodplain of a water identified in paragraphs (i) through (iii) of this definition

> or within 4,000 feet of the high tide line or ordinary high water mark. Waters identified in this paragraph shall not be combined with waters identified in paragraph (vi) of this definition when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (1)(vi) of this definition, they are an adjacent water and no case-specific significant nexus analysis is required.

Finally, the 2015 Waters of the United States Rule specifies several categories of waters that are excluded from CWA jurisdiction, even if they otherwise meet the terms of paragraphs (iv) through (viii) above. The excluded waters are waste treatment systems, prior converted cropland and ditches with ephemeral or intermittent flow that are not a relocated tributary or excavated in tributary, as well as ditches that do not flow into waters in categories (i) through (iii) above. However, a ditch with intermittent flow that drains wetlands and flows to waters in categories (i) through (iii) may not be excluded. Also excluded are artificial reflecting pools or swimming pools, ornamental waters, and incidental created depressions, provided these were created in dry land. Other excluded waters are erosional features that do not meet the definition of tributary, puddles, groundwater, stormwater control features created in dry land, and wastewater recycling structures, basins, and distributary structures constructed in dry land.

The USACE typically considers any body of water displaying an ordinary high-water mark (OHWM) for designation as waters of the United States, subject to the 2015 Waters of the United States Rule. USACE jurisdiction over nontidal waters of the United States extends laterally to the OHWM or beyond the OHWM to the limit of any contiguous wetlands, if present. The OHWM is defined as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area" (33 CFR 328.3). Jurisdiction typically extends upstream to the point where the OHWM is no longer perceptible.

Waters found to be isolated and not subject to CWA regulation may still be regulated by the RWQCB under the Porter-Cologne Act.

Migratory Bird Treaty Act

The MBTA makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to federal regulations. The migratory bird species protected by the act are listed in 50 CFR 10.13. USFWS has statutory authority and responsibility for enforcing the MBTA (16 USC 703–712), the Fish and Wildlife Improvement Act of 1978 (16 USC 742l), and the Fish and Wildlife Act of 1956 (16 USC 742a–j). The MBTA implements conventions between the United States and four countries (Canada, Mexico, Japan, and Russia) for the protection of migratory birds.

State

California Endangered Species Act

The California Endangered Species Act (CESA) provides definitions for endangered species, threatened species, and candidate species of California. CESA protects listed endangered and threatened species, and candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the California Fish and Game Commission. CESA Article 3, Sections 2080 through 2085, address the taking of threatened, endangered, or candidate species by stating, "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided." Under CESA, "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow "take" require permits or memoranda of understanding, and can be authorized for endangered species, threatened species, or candidate species for scientific, educational, or management purposes, and for take incidental to otherwise lawful activities. Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

CESA Sections 2090–2097 require that the state lead agency consult with CDFW on projects with potential impacts to state-listed species. These provisions also require CDFW to coordinate consultations with USFWS for actions involving federally and state-listed species. In certain circumstances, Section 2080.1 of the California Fish and Game Code allows CDFW to adopt the federal incidental take statement or the 10(a) permit as its own based on its findings that the federal permit adequately protects the species under state law.

Waters of the State

Regional Water Quality Control Board

CWA Section 401 requires federal agencies to obtain a Water Quality Certification from the RWQCB before issuing permits that would result in increased pollutant loads to a water body. A Section 401 certification can be issued only if increased pollutant loads would not cause or contribute to exceedances of water quality standards. Subsequent to the decision in *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.*, the Chief Counsel for the State Water Resources Control Board issued a memorandum that addressed the effects of that decision on the Section 401 Water Quality Certification Program:

> California's right and duty to evaluate certification requests under section 401 is pendant to (or dependent upon) a valid application for a section 404 permit from [USACE], or another application for a federal license or permit. Thus if

> [USACE] determines that the water body in question is not subject to regulation under [USACE's] 404 program, for instance, no application for 401 certification will be required.

California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, Section 1602 of the California Fish and Wildlife Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. CDFW requires an entity to notify CDFW of any proposed activity that may modify a river, stream, or lake if the activity will substantially divert or obstruct the natural flow of any river, stream, or lake; substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or deposit or dispose of debris, waste, or other material containing crumbled, flakes, or ground pavement where it may pass into any river, stream, or lake. This notification requirement applies to any work undertaken in or near a river, stream, or lake that flows at least intermittently through a bed or channel. It may also apply to work undertaken within the floodplain of a body of water.

4.3.3 Thresholds of Significance

The significance criteria used to evaluate the Project's impacts to biological resources are based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to biological resources would occur if the Project would:

1. 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 Game or U.S. Fish and Wildlife Service. (*The WECS 20 FEIR previously found this impact to be less than significant with mitigation incorporated.)*
2. 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. (*The WECS 20 FEIR previously found this impact to be less than significant with mitigation incorporated.)*
3. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. (*The WECS 20 FEIR previously found this impact to be less than significant.)*
4. 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. (*The WECS 20 FEIR previously found this impact to be less than significant with mitigation incorporated.)*

5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (*The WECS 20 FEIR previously found this impact to be less than significant.)*
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. (*The WECS 20 FEIR previously found this impact to be less than significant.)*

4.3.4 Impacts Analysis

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 Game or U.S. Fish and Wildlife Service?

Threatened and Endangered Species

Habitat within the Survey Area is considered unsuitable for seven of the 11 species identified as threatened/endangered species in Section 4.3.1, Existing Conditions. The Survey Area provides moderate quality habitat for desert tortoise, and low-quality habitat for Coachella Valley milk vetch, triple-ribbed milk vetch, and desert bighorn sheep. Additionally, low-quality foraging habitat for the golden eagle is present within the Survey Area. The Coachella Valley milkvetch and the triple-ribbed milkvetch are Covered Species under the CVMSHCP. Any impacts to these species will be covered through participation in the CVMSHCP.

The results of the biological assessment conducted for this Project determined that suitable habitat (creosote bush scrub and desert washes) for desert tortoise occurs on the Project site. The species was not observed on site during the 2018 biological resources survey; however the species has been previously found on the Project site. Based on previous observations and habitat suitability, this SEIR assumes presence of desert tortoise on site. Consistent with mitigation measure (MM) MM-BIO-28 and the Project's final JPR, a pre-construction survey for the desert tortoise will be required prior to any ground-disturbing activities. The pre-construction survey must be conducted during the window between February 15 and October 31. This survey requires 100% coverage of the survey area. If no sign is found, a clearance survey is not required. A pre-construction survey is valid for 90 days or indefinitely if tortoise-proof fencing is installed around the development site. If fresh sign is located, the development area must be fenced with tortoise-proof fencing and a clearance survey conducted during the clearance window. Desert tortoise clearance surveys shall be conducted during the clearance window from February 15 to June 15 and September 1 to October 31 or in accordance with the most recent wildlife agency protocols. Clearance surveys

must cover 100% of the development area. The desert tortoise is a Covered Species under the CVMSHCP. Any impacts to this species will be covered through participation in the CVMSHCP.

For purposes of overseeing compliance with CVMSHCP requirements and with the Implementing Agreement, a final JPR was issued for the Project on April 2, 2019 by the Coachella Valley Conservation Commission (CVCC) for Project impacts within the Conservation Area to address the total acres of disturbance within the Conservation Area. Participation in the CVMSHCP through the Project's final JPR mitigates the Project impacts to desert tortoise, Coachella Valley milk vetch, and triple-ribbed milk vetch. Additionally, the Project would implement MM-BIO-18 through MM-BIO-28, MM-BIO-34 through MM-BIO-41, MM-BIO-45 through MM-BIO-49, and MM-BIO-52 through MM-BIO-55 to reduce impacts to special-status species.

Additionally, because the proposed Project area lies along the southernmost range boundary for desert bighorn sheep, a California fully protected species, and provides low-quality habitat for the species, the proposed Project is not anticipated to have adverse effects on the peninsular bighorn sheep. Adherence with the land use adjacency provisions outlined in MM-BIO-18 will offset potential indirect impacts to the bighorn sheep, and therefore, impacts to this species will be less than significant.

Based on the previous studies conducted for golden eagle, very low mortality in this area, general avian use, and the Project design (including fewer turbines with more space between turbines), the Project is not anticipated to have a significant effect on golden eagles. Due to removal of numerous existing turbines and their replacement with fewer new turbines, avian impacts are expected to be reduced from existing conditions.

Non-Listed Special Interest Species

The 33 special-interest species identified in Appendix E-1 as having a low to high probability of occurrence in the Survey Area have limited population distribution in Southern California, and development is further reducing their ranges and numbers. The following non-listed special-interest species have a moderate probability to occur within the Survey Area:

- Desert beardtongue
- Orangethroat whiptail
- Burrowing owl
- Prairie falcon
- Loggerhead shrike
- Le Conte's thrasher

- Palm Springs pocket mouse

Burrowing Owl

The results of the biological assessment conducted for this Project determined suitable habitat for burrowing owl occurs on the Project site. The species was not observed on site during the 2018 biological resources survey. However, the burrowing owl is a highly mobile species with the potential to move onto the Project site prior to construction; therefore, consistent with the CVMSHCP and updated MM-BIO-41, a pre-construction burrowing owl survey will be required using an accepted protocol (as determined by the CVCC in coordination with the permittees and the wildlife agencies). During construction-related activities, contractors will comply with the mitigation and minimization measures contained in the CVMSHCP protocol. Additionally, the Project would implement MM-BIO-18, MM-BIO-19, MM-BIO-27, MM-BIO-38, and MM-BIO-46 through MM-BIO-48 to reduce impacts associated with burrowing owls to less than significant.

In addition, to ensure compliance with the California Fish and Game Code and to avoid potential impacts to nesting birds, it is recommended that the vegetation removal activities be conducted outside the general bird-nesting season (January 15 through August 31). If vegetation cannot be removed outside the bird-nesting season, consistent with MM-BIO-22, a pre-construction nesting-bird survey by a qualified biologist is required prior to vegetation removal.

Le Conte's Thrasher

The Le Conte's thrasher is a covered species under the CVMSHCP. Consistent with the Project's final JPR and MM-BIO-18, during the nesting season (January 15 through June 15), prior to the start of construction activities, pre-construction surveys will be conducted by an acceptable biologist on the construction site and within 500 feet of the construction site, or to the property boundary if less than 500 feet. If nesting Le Conte's thrashers are found, a 500-foot buffer, or to the property boundary if less than 500 feet, will be established around the nest site. The buffer will be staked and flagged. No construction will be permitted within the buffer during the breeding season of January 15 through June 15 or until the young have fledged. Through the implementation of MM-BIO-18, the Project will not have a substantial effect on Le Conte's thrasher.

Palm Springs Pocket Mouse

The Palm Springs pocket mouse is a covered species under the CVMSHCP. Consistent with the Project's final JPR and MM-BIO-18, clearing, revegetation, trapping, and translocation impacts to Palm Spring pocket mouse must be avoided. Through the implementation of MM-BIO-18, the Project is not anticipated to have a substantial effect on Palm Springs pocket mouse.

Desert beardtongue, orangethroat whiptail, prairie falcon, and loggerhead shrike have no official state or federal protection status, but impacts to these species merit consideration under CEQA. Due to the relatively small permanent Project impact (0.95 acres), combined with the existing developed nature of the site, and by implementing MM-BIO-18 through MM-BIO-28, MM-BIO-34 through MM-BIO-41, MM-BIO-45 through MM-BIO-49, and MM-BIO-52 through MM-BIO-55, the Project will not have a substantial effect on these non-listed special-interest species.

Avian Species

An increasing body of evidence suggests that repowering results in a reduction in overall avian fatalities. In Gotland Sweden, a 58-turbine wind energy facility was repowered to a 28-turbine facility producing four times the amount of energy compared with the old wind facility. At this facility, Hjernquist (2014) compared mortality rates and the distribution of breeding and wintering birds between old and new turbines. In general, the study found no significant impact on breeding or wintering bird distribution, and while the study found that 1.77 times more birds collided per turbine per year after repowering, after accounting for the reduced number of turbines at the repowered facility, the overall number of avian fatalities at the wind farm decreased by 19%, from 1,700 birds per year to 1,500 birds per year (Dahl et al. 2015). Because the energy production increased fourfold, the number of bird fatalities per megawatt (MW) was reduced by 80% following repowering (Dahl et al. 2015; Hjernquist 2014).

Similarly, evidence collected to date from three repowered sites (Diablo Winds, Buena Vista, and Vasco Winds) in California's Altamont Pass Wind Resource Area (APWRA) suggests that the larger modern turbines cause substantially fewer turbine-related avian fatalities than the older generation turbines on a per MW basis (ICF International 2016; Brown et al. 2013; Alameda County Community Development Agency 2014). At Diablo Winds, substantially lower fatality rates (bird fatalities/MW/year) were estimated for the 31 new 660-kilowatt (kW) turbines compared with the nearly 600 concurrently operating older (100–120 kW) turbines in the APWRA during the 2005–2007 study period (Smallwood and Karas 2009; ICF International 2016). Following the repowering at Diablo Winds, the estimated number of overall bird fatalities/MW/year decreased by 61% (14.4 to 5.7 birds/MW/year), while estimated fatality rates for all raptors decreased by 52% (3.7 to 1.8 raptors/MW/year; Smallwood and Karas 2009). This included decreases in 86% for golden eagle, 64% for red-tailed hawk, 92% for American kestrel, 24% for burrowing owl, 44% for western meadowlark, and 44% for loggerhead shrike.

Similar reductions in fatality rates were estimated at the repowered Buena Vista facility, in which 179, 150–160 kW turbines were replaced with 38, 1MW turbines in 2006. After a three-year fatality study at Buena Vista, it was estimated that the number of raptor fatalities/MW decreased by 87% (2.43 to 0.31 raptors/MW/year) and native non-raptor bird fatalities/MW decreased by 78% (4.5 to 1.0 birds/MW/year) over old-generation turbines operating in the APWRA from 2005

to 2011 (Insignia Environmental 2012; Alameda County Community Development Agency 2014). This included a 50% reduction in eagle fatalities/MW and a 77% reduction in red-tailed hawk fatalities/MW. Additionally, no burrowing owl or loggerhead shrike fatalities were documented at the repowered project; both of these species are common fatalities encountered at non-repowered turbines within the APWRA (Smallwood and Karas 2009; Insignia Environmental 2012).

Similarly, after one year of fatality monitoring at the repowered Vasco Winds Energy Project (comprising 34, 2.3 MW turbines), Brown et al. (2013) estimated a reduction of about 65% in raptor fatalities/MW and a reduction of about 78% in overall bird fatalities/MW over the old-generation wind energy facility that preceded it. This included a decline of 97% for golden eagles, 68% for red-tailed hawks, and 59% for American kestrel; no change was observed for burrowing owl. The original facility at the Vasco Winds site comprised approximately 800 turbines ranging in capacity from 100 to 400 kW for a total capacity of about 80 MW. This is similar to the 78 MW capacity of the repowered project which replaced it. Given the substantial reduction in estimated bird fatalities per MW following repowering, it appears that the new repowered site has an overall much lower impact on birds, despite an estimated six-fold increase in rotor-swept area.

Several other studies have examined the relationship between turbine capacity, hub height, and/or rotor diameter on avian fatality rates. Hötker (2006) analyzed impacts of wind turbines on birds and bats, with an emphasis on how repowering is expected to change the risk of collision. Modeling avian and bat fatality rates as a function of turbine capacity (ranging from less than 0.1 MW up to 2.0 MW) and turbine height (22 m to 114 m) showed that collision rates for birds and bats correlate significantly with hub height and total blade height (i.e., larger wind turbines have higher collision rates than smaller ones); however, mass mortalities were still not reported for migrating birds, even for the tallest turbines examined (Hötker 2006). Alternatively, Barclay et al. (2007) analyzed data from North American wind energy facilities and found that neither the height of the turbine tower nor the diameter of the turbine rotor had an influence on bird fatality rates.

Thaxter et al. (2017) conducted a recent meta-analysis of avian and bat collision mortality at wind farms, examining 88 bird studies at 93 onshore wind energy sites and 87 bat studies at 134 onshore wind energy sites to generate predictions of fatalities per turbine per year for birds and bats with increasing turbine capacity. The range of turbines included in the review was 0.1–2.5 MW. For birds and bats, larger turbines were associated with increased collision rates per turbine; however, a greater number of smaller turbines resulted in higher estimated mortality than a smaller number of larger turbines at projects of similar size on a per MW basis (Thaxter et al. 2017). Simulations using 0.01 MW turbines resulted in the largest estimated number of bird and bat fatalities. Thereafter, the number of bird and bat fatalities decreased exponentially up to approximately 1.2 MW. For birds, the relationship continued to decline up to 2.5 MW turbines. In contrast, the fatality rate for bats increased slightly between 1.2 MW turbines and 2.5 MW turbines, but was still well below the fatality rate for 0.1 MW turbines (Thaxter et al. 2017). While the largest capacity

turbines examined in this study area still considerably smaller than those proposed for the Project, results of these studies indicate that while overall bird and bat fatalities per turbine will likely increase, fatality rates on a per MW basis will likely decrease for birds.

Finally, based on a study of eight land-based wind farms in Belgium with a total of 66 small to large turbines, results indicated that local factors (e.g., habitat, micrositing) can lead to strong variation in mortality rate and collision risk that could obscure possible effects of turbine size at wind farms (Everaert 2014). However, the author suggests that large turbines have more installed capacity (MW), so repowering wind farms with larger but fewer turbines could reduce total mortality at certain locations (Everaert 2014).

Based on the discussion above, previous studies conducted for golden eagle (see Appendix E-2 and Appendix D of Appendix E-1), and available data regarding general avian use (CH2M Hill 2011), and with consideration of the Project design and the lack of eagle mortalities on nearby projects, the Project is not anticipated to have a significant effect on bird and bat mortality. Due to removal of numerous existing turbines and their replacement with fewer new turbines, avian impacts are expected to be reduced compared with existing conditions.

Bat Species

Non-listed special status bat species have the potential to be present in the Project area. But the Project area does not have open water, tree-roosting habitat or other preferred nesting, or roosting habitat features that would tend to attract bars. No bats or bat sign were observed during field surveys, and their occurrence within the Project area is low. Therefore, the Project is not likely to significantly impact bat species.

Plant and Wildlife Species Impact Summary

The WECS 20 FEIR determined that MM-BIO-18 through MM-BIO-55 are required to reduce impacts to less than significant levels. As discussed above, the Project would be required to adhere to these measures, which would further minimize the potential for impacts to sensitive plant and wildlife species on the Project site.

Therefore, with incorporation of mitigation, no new or more severe impacts associated with threatened/endangered species, including desert tortoise; non-listed special-interest species, including burrowing owl; and avian species would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR (less than significant with mitigation incorporated).

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?

The results of the biological assessment (including field surveys) conducted for this Project (Appendix E-1) determined the biological resources Survey Area does not contain riparian habitat or other sensitive natural communities identified by CDFW or USFWS. Based on the lack of these sensitive habitats, no significant impacts associated with riparian habitat or other sensitive natural communities would occur.

Therefore, no new or more severe impacts associated with riparian habitat or other sensitive natural communities would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR (less than significant with mitigation incorporated).

Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Based on the results of the wetlands delineation/jurisdictional assessment conducted for the Project (Appendix E-1), a total of approximately 1.55 acres of potential USACE non-wetland waters of the United States and approximately 1.96 acres of potential CDFW streambed occur within the Survey Area. The Project will have 0.91 acres of permanent impacts and 0.29 acres of temporary impacts to potential non-wetland USACE waters of the United States and 0.95 acres of permanent impacts and 0.31 acres of temporary impacts to CDFW streambed. The proposed Project will not affect USACE jurisdictional wetlands waters or CDFW riparian habitat (Figures 4.3-3A through 4.3-3E).

Project effects to jurisdictional waters will require a CWA Section 404 permit from USACE, a Section 401 Water Quality Certification from RWQCB, and a Fish and Game Code Section 1602 Streambed Alteration Agreement from CDFW. The Project is expected to be authorized under a USACE Nationwide Permit (NWP): NWP 3 for repair and rehabilitation to the access road. NWPs are designed for projects with minimal adverse effects on the aquatic environment. NWP 3 authorizes the repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3, such as roads similar to those that currently exist within the Project site.

Compensatory mitigation will be required to offset the loss of jurisdictional waters and will be at a minimum 1:1 mitigation ratio. Mitigation for effects to non-wetland waters of the United States and state will be consistent with the USACE Compensatory Mitigation for Losses of Aquatic Resources (73 FR 19594-19705), also known as the USACE Compensatory Mitigation Rule. The Project will purchase In-Lieu Fee credits from the CVCC In-Lieu fee Program at a minimum 1:1 mitigation ratio.

With implementation of the updated MM-BIO-45 and MM-52, and based on compliance with federal (Section 404 of the federal CWA) and state (Sections 1600 through 1616 of the California Fish and Game Code, and Section 401 of the federal CWA) regulations, no new or more severe impacts associated with federally protected wetlands and jurisdictional waters of the United States and state would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR (less than significant). Updated mitigation measures (MM-BIO-45 and MM-BIO-52) have been added to require 1:1 mitigation for impacts to jurisdictional waters.

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?

Wildlife movement and habitat fragmentation are important issues in assessing effects to wildlife. Habitat fragmentation occurs when a proposed action results in a single, unified habitat area being divided into two or more areas such that the division isolates the two new areas from each other. Isolation of habitat occurs when wildlife cannot move freely from one portion of the habitat to another or from one habitat type to another. An example is the fragmentation of habitats within and around "checkerboard" residential development. Habitat fragmentation can also occur when a portion of one or more habitats is converted into another habitat, as when scrub habitats are converted into annual grassland habitat because of frequent burning. The Project does not lie within a CVMSHCP designated Biological Linkage or Corridor, and, per MM-BIO-22, pre-construction nesting bird surveys will be conducted prior to construction. Local wildlife movement may be temporarily disrupted during the vegetation removal and construction processes, but this effect would be localized and short term. In addition, as previously discussed, with the incorporation of new and existing mitigation measures identified in the WECS 20 FEIR, impacts to wildlife species, including those that are breeding, denning, burrowing, nesting, and nursing, would be minimized to less-than-significant levels.

Therefore, no new or more severe impacts associated with wildlife movement and wildlife nursery sites would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR (less than significant).

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

Based on the 2018 biological resources survey, native plants protected by the California Desert Native Plant Act (Division 23 of the California Food and Agriculture Code, Sections 80007-80175) were found to be present on site. Revisions are proposed to MM-BIO-21 to protect native plants identified under the California Desert Native Plant Act located in areas anticipated to be impacted. These plants shall be transplanted into portions of the property that will remain natural

open space. The transplantation sites will, as closely as possible, match the original plant locations with regards to soils, slope, and aspect. A permit to harvest the protected plants shall be obtained from the Riverside County Commissioner prior to construction. Compliance with revised MM-BIO-21 would reduce the impacts to less than significant. Through participation in the CVMSHCP, the Project would not conflict with any local policies or ordinances, and none are identified above in the regulatory setting section.

Therefore, no new or more severe impacts associated with local policies or ordinances protecting biological resources would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR (less than significant).

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?

Between the time the City of Desert Hot Springs (City) certified the WECS 20 FEIR (January 2008) and the present, the City has become a signatory to the CVMSHCP. Thus, the CVMSHCP is now applicable to the Project and any development on the Project site.

The CVMSHCP is a comprehensive, multi-jurisdictional habitat conservation plan focusing on conservation of species and their associated habitats in the Coachella Valley region of Riverside County. The overall goal of the CVMSHCP is to maintain and enhance biological diversity and ecosystem processes within the region, while allowing for future economic growth. The CVMSHCP covers 27 sensitive plant and wildlife species (Covered Species) as well as 27 natural communities. Covered Species include both listed and non-listed species that are conserved by the CVMSHCP through habitat preservation and land acquisition. The overall provisions for the CVMSHCP are subdivided according to specific resource conservation goals that have been organized according to geographic areas defined as conservation areas. These areas are identified for sensitive plant, invertebrate, amphibian, reptile, bird, and mammal species, and for the preservation of ecological processes.

Each conservation area has specific conservation objectives that must be satisfied. Those conservation objectives include how the CVMSHCP will accomplish the protection of Core Habitat, Essential Ecological Processes, Biological Corridors, and Linkages in the CVMSHCP Reserve System to ensure that the Covered Species are adequately conserved. The conservation area conservation goals are also designed to ensure the persistence of natural communities. The Project is a covered activity under Section 7.3.1 of the CVMSHCP (CVAG 2016) as follows:

> New ground disturbance associated with repowering or development of new wind energy facilities shall be treated as a Covered Activity similar to development projects permitted or approved by Local Permittees. Within each Permittee's jurisdiction, existing wind

turbines may be replaced with new turbines. If old turbines are removed and the former impact area is restored to a natural condition, an equal new area may be disturbed without counting toward the calculation of net disturbance.

The majority of the Project site lies within the Upper Mission Creek/Big Morongo Canyon Conservation Area of the CVMSHCP (Figure 4.3-2). The Project is subject to the requirements of the CVMSHCP. Based on the recommendations outlined in the biological resources assessment and CVMSHCP consistency analysis (Appendix E-1), adherence to the Project's final JPR, and mitigation measures identified in the WECS 20 FEIR (see below for the list of applicable measures), the Project would be consistent with the CVMSHCP.

For purposes of overseeing compliance with CVMSHCP requirements and with the Implementing Agreement, a final JPR was issued by the CVCC on April 2, 2019, for Project impacts within the Conservation Area to address 20 acres of total disturbance within the Conservation Area.

A portion of both the Access Road and Transmission Facilities lie outside of but adjacent to the Conservation Area. Per mitigation measure MM-BIO-18, the Project will comply with the CVMSHCP Land Use Adjacency Guidelines outlined in the Project's final JPR.

With revised and updated MM-BIO-18 through MM-BIO-28, MM-BIO-34 through MM-BIO-41, MM-BIO-45 through MM-BIO-49, and MM-BIO-52 through MM-BIO-55, no new or more severe impacts associated with habitat conservation plans or natural community conservation plans would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR.

4.3.5 Cumulative Impacts

The geographic scope of the cumulative biological resources analysis is the broader Coachella Valley region. The Project would be located on a site that currently supports an existing commercial wind energy facility, and thus, portions of the Project site are already disturbed by previous development activities.

Ongoing development and growth in the broader Project area may result in a cumulatively significant impact to biological resources due to the loss of potential habitat for rare, endangered, and threatened species. However, the Project would be constructed within the confines of mostly developed and disturbed footprints. Due to the relatively small Project impact combined with the decommissioning and removal of the numerous existing on-site turbines, and thorough compliance with the CVMSHCP, net effects related to implementation of the Project would be considered to be beneficial and not adverse on either a Project-specific or cumulative basis.

As discussed herein, the individual, Project-level impacts associated with biological resources were found to be less than significant with incorporation of the Project's final JPR and mitigation

measures, and the Project would be required to comply with all applicable federal, state, and local requirements related to special-status plants, animals, habitats, and jurisdictional waters. Other related cumulative projects would similarly be required to comply with all such requirements and regulations, to be consistent with the provisions set forth by CEQA and the CEQA Guidelines, and to implement all feasible mitigation measures should a significant Project-related and/or cumulative impact be identified. Therefore, impacts associated with biological resources would not be cumulatively considerable.

4.3.6 Mitigation Measures

Applicable Mitigation Measures from WECS 20 FEIR

The Project would be required to comply with the following applicable biological resources mitigation measures adopted by the City as part of the WECS 20 FEIR. Where necessary, minor refinements to the WECS 20 FEIR's mitigation measures are recommended to better tailor the existing mitigation measures to the current Project; text changes are shown in underline (additional text) and ~~strikethrough~~ (removed text).[1]

MM-BIO-18 ~~Thirty days prior to commencement of construction, the Project site shall be resurveyed by a qualified biologist for the presence of sensitive species. Additionally, a qualified biological monitor would be on-site during all construction activities. The biological monitor will have the authority to halt or divert construction activities, which may be in violation of the stipulations herein. The biological monitor will file a final report with the City Planning Department at the conclusion of construction.~~ The Project Applicant shall adhere to and implement all applicable provisions of the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP). This includes adherence with requirements set forth in the CVMSHCP and outlined in the Project's Final Joint Project Review (JPR) pertaining to desert tortoise, burrowing owl, plants, and other protected biological resources and detailed in subsequent mitigation measures. In addition to those mitigation requirements, the Project Applicant shall also adhere to the following provisions required by the CVMSHCP and the Project's Final JPR:

Palm Springs Pocket Mouse

To avoid impacts to the Palm Springs pocket mouse and its habitat in the Upper Mission Creek/Big Morongo Canyon and Willow Hole Conservation Areas, Flood

[1] Note that between the time when the City certified the WECS 20 FEIR (January 2008) and the present, the City has become a signatory to the CVMSHCP. Thus, the CVMSHCP is now applicable to the Project and any development on the Project site. As a result, some of the mitigation measures that were previously required as part of the WECS 20 FEIR are now satisfied by regulatory requirements set forth in the CVMSHCP.

Control-related construction activities will comply with the following avoidance and minimization measures:

- **Clearing**. For construction that would involve disturbance to Palm Springs pocket mouse habitat, activity should be phased to the extent feasible and practicable so that suitable habitat islands are no farther than 300 feet apart at any given time to allow pocket mice to disperse between habitat patches across non-suitable habitat (i.e., unvegetated and/or compacted soils). Prior to project construction, a biological monitor familiar with this species should assist construction crews in planning access routes to avoid impacts to occupied habitat as much as feasible (i.e., placement of preferred routes on project plans and incorporation of methods to avoid as much suitable habitat/soil disturbance as possible). Furthermore, during construction activities, the biological monitor will ensure that connected, naturally vegetated areas with sandy soils and typical native vegetation remain intact to the extent feasible and practicable. Finally, construction that involves clearing of habitat should be avoided during the peak breeding season (approximately March to May), and activity should be limited as much as possible during the rest of the breeding season (January to February and June to August).
- **Revegetation**. Clearing of native vegetation (e.g., creosote, rabbitbrush, burrobush, cheesebush) should be followed by revegetation, including natural re-establishment and other means, resulting in habitat types of equal or superior biological value for Palm Springs pocket mouse.
- **Trapping/Holding**. All trapping activity should be conducted in accordance with accepted protocols and by a qualified biologist who possesses a Memorandum of Understanding with CDFW for live-trapping of heteromyid species in Southern California.
- **Translocation**. Should translocation between distinct population groups be necessary, as determined through the Adaptive Management and Monitoring Program, activity should be conducted by a qualified biologist who possesses a Memorandum of Understanding with CDFW for live-trapping of heteromyid species in Southern California. Trapping and subsequent translocation activity should be conducted in accordance with accepted protocols. Translocation programs should be coordinated by or conducted by the Coachella Valley Conservation Commission (CVCC) and/or Riverside Management Oversight Committee (RMOC) to determine

the appropriate trapping, holding, marking, and handling methods and potential translocation sites.

Le Conte's Thrasher

In modeled Le Conte's thrasher habitat in all the Conservation Areas, during the nesting season, January 15–June 15, prior to the start of construction activities, surveys will be conducted by an Acceptable Biologist on the construction site and within 500 feet of the construction site, or to the property boundary if less than 500 feet. If nesting Le Conte's thrashers are found, a 500-foot buffer, or to the property boundary if less than 500 feet, will be established around the nest site. The buffer will be staked and flagged. No construction will be permitted within the buffer during the breeding season of January 15–June 15 or until the young have fledged.

Land Use Adjacency Guidelines

The following Land Use Adjacency Guidelines shall be implemented during the Project design within the Conservation Area to minimize edge effects:

- **Drainage**. Proposed development adjacent to or within a Conservation Area shall incorporate plans to ensure that the quantity and quality of runoff discharged to the adjacent Conservation Area is not altered adversely compared with existing conditions. Stormwater systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials, or other elements that might degrade or harm biological resources or ecosystem processes within the adjacent Conservation Area.
- **Toxics**. Land uses proposed adjacent to or within a Conservation Area that use chemicals or that generate bioproducts, such as manure, that are potentially toxic or may adversely affect wildlife and plant species, habitat, or water quality shall incorporate measures to ensure that application of such substances does not result in any discharge to the adjacent Conservation Area.
- **Lighting**. For proposed development adjacent to or within a Conservation Area, lighting shall be shielded and directed toward the developed area. Landscape shielding or other appropriate methods shall be incorporated in Project designs to minimize the effects of lighting adjacent to or within the adjacent Conservation Area in accordance with the guidelines to be included in the Implementation Manual.

- **Noise**. Proposed development adjacent to or within a Conservation Area that generates noise in excess of 75 dBA L_{eq} hourly shall incorporate setbacks, berms, or walls as appropriate to minimize the effects of noise on the adjacent Conservation Area in accordance with the guidelines to be included in the Implementation Manual.
- **Invasive Species**. Invasive, non-native plant species shall not be incorporated in the landscape for land uses adjacent to or within a Conservation Area. Landscape treatments within or adjacent to a Conservation Area shall incorporate native plant materials to the maximum extent feasible.

Sand Transport Areas

Project activities, including operations and maintenance activities, in fluvial sand transport areas in the Conservation Area will be conducted in a manner to maintain the fluvial sand transport capacity of the system.

Reason for Text Amendment to the Mitigation Measure: Between the time when the City certified the WECS 20 FEIR (January 2008) and the present, the City has become a signatory to the CVMSHCP. Many of the mitigation measures previously recommended in the WECS 20 FEIR (and provided below) are now addressed by standard regulatory requirements set forth in the CVMSHCP, and thus, the Project would comply with them simply by adhering to the applicable provisions outlined by the CVMSHCP.

MM-BIO-19 All construction personnel will participate in a biological awareness training program prior to commencement of any decommissioning or construction activities, and a report verifying same would be provided to the City Planning Department.

Reason for Text Amendment to the Mitigation Measure: New text added for clarification.

MM-BIO-20 Upon removal of the ~~16 Bonus~~ wind turbines, the area where each individual ~~Bonus~~ wind turbine was located shall be remediated ~~remedied~~. The site shall be evaluated and any soil contamination shall be removed, ~~structural foundations (cutting to six feet below grade) and~~ all manmade debris shall be removed from the site, and the area shall be replanted with plant material native to the Coachella Valley. Monitoring of all such activities shall be undertaken by a qualified biological monitor, who shall file a written report to the City of findings upon completion of the site remediation as outlined above.

Reason for Text Amendment to the Mitigation Measure: The Project is requesting to decommission all of the existing on-site wind turbines from the Project site, not just the 16 Bonus wind turbines. Existing foundations not impacted by the construction of the Project turbines shall remain in place, consistent with recommendations provided in the Project's final JPR.

MM-BIO-21 Native plants identified under the California Desert Native Plant Act located in areas anticipated to be impacted shall ~~All barrel cacti located in areas anticipated to be impacted by the Project would~~ be transplanted into portions of the property that will remain as natural open space. The transplantation sites will, as closely as possible, match the original plant ~~barrel cacti~~ locations with regards to soils, slope, and aspect. A permit to harvest the protected plants shall be obtained from the Riverside County Commissioner prior to construction.

Reason for Text Amendment to the Mitigation Measure: The new language expands the scope of measure to include all plants protected under the California Desert Native Plant Act, not just barrel cacti.

MM-BIO-22 All turbine sites will be clearly marked prior to grading in order to limit damage to adjacent vegetation. Grading and vegetation removal would be limited to construction areas identified in the Project grading plan.

To ensure compliance with the California Fish and Game Code, and to avoid potential impacts to nesting birds, vegetation removal activities shall be conducted outside the general bird nesting season (January 15 through August 31). If vegetation cannot be removed outside the bird nesting season, a pre-construction nesting bird survey by a qualified biologist is required prior to vegetation removal.

Reason for Text Amendment to the Mitigation Measure: Clarification of the intent of the original mitigation measure. In addition, further requirements are added to ensure that vegetation removal complies with the California Fish and Game Code.

MM-BIO-23 Construction and maintenance traffic will utilize existing roads, and vehicle parking will be limited to existing disturbed areas.

MM-BIO-24 Grading on-site will be limited to construction areas identified in the Project grading plan only. All tower sites and access road locations would be clearly marked prior to the initiation of any ground-disturbing activity. All staging areas shall occur on previously-disturbed areas.

Reason for Text Amendment to the Mitigation Measure: Clarification of the intent of the original mitigation measure.

MM-BIO-25 During construction and ongoing maintenance operations, wind farm personnel will be restricted to approved dirt roads only. No unauthorized grading of the site will be permitted.

MM-BIO-26 Applicant will be responsible for controlling and removing all trash and/or windblown debris generated on the site during construction and routine maintenance operations.

MM-BIO-27 All construction personnel will participate in a biological awareness training program prior to commencement of construction activities, and a report verifying same would be provided to the City Planning Department.

MM-BIO-28 ~~In order to ensure that no desert tortoises are harmed and that the tortoises can continue to utilize the Project site during the operation and maintenance phases of the Project, a desert tortoise survey will be performed within 24 hours prior to commencement of construction, and all construction activities will be monitored by a qualified biologist.~~ A desert tortoise pre-construction survey must be conducted during the window between February 15 and October 31. Pre-construction surveys require 100% coverage of the survey area. If no sign is found, a clearance survey is not required. A pre-construction survey is valid for 90 days or indefinitely if tortoise-proof fencing is installed around the development site.

If fresh sign is located, the development area must be fenced with tortoise-proof fencing and a clearance survey conducted during the clearance window. Desert tortoise clearance surveys shall be conducted during the clearance window from February 15 to June 15 and September 1 to October 31 or in accordance with the most recent wildlife agency protocols. Clearance surveys must cover 100% of the development area. A clearance survey must be conducted during different tortoise activity periods (morning and afternoon). All tortoises encountered will be moved from the development site to a specified location. Prior to issuance of the permits, the Coachella Valley Conservation Commission (CVCC) will either use the Permit Statement Pertaining to High Temperatures for Handling Desert Tortoises and Guidelines for Handling Desert Tortoises During Construction Projects, revised July 1999, or develop a similar protocol for relocation and monitoring of desert tortoise, to be reviewed and approved by the wildlife agencies. Thereafter, the protocol will be revised as needed based on the results of monitoring and other information that becomes available.

For operations and maintenance (O&M) activities in the Conservation Areas, the Permittees shall ensure that personnel conducting such activities are instructed to be alert for the presence of desert tortoise. If a tortoise is spotted, activities adjacent to the tortoise's location will be halted and the tortoise will be allowed to move away from the activity area. If the tortoise is not moving, it will be relocated by an Acceptable Biologist to nearby suitable habitat and placed in the shade of a shrub. To the maximum extent feasible, O&M activities will avoid the period from February 15 and October 31.

Utility development protocols have been developed to avoid or minimize potential adverse impacts to the desert tortoise in the Conservation Areas from utility and road right-of-way projects, such as the installation and maintenance of water, sewer, and electric lines and roadway maintenance. The objectives of these protocols are to provide reliable and consistent direction on utility development within the Conservation Areas. Two utility development protocols, inactive and active season, provide specific direction on site preparation and construction phases of utility projects in the Conservation Areas. The protocols include steps to be followed during the desert tortoise active and/or inactive season. The inactive season protocol must be used for utility maintenance or development within the November 1 to February 14 time frame; the active season protocol must be used for utility maintenance or development within the February 15 to October 31 time frame. Deviations from these time frames must be presented to the Riverside Management Oversight Committee (RMOC).

Inactive Season Protocol

This protocol is applicable to pre-construction and construction phases of utility Covered Activity projects occurring between November 1 and February 14. These protocols apply only to the site preparation and construction phases of projects. The Project proponent must follow the eight pre-construction protocol requirements listed below:

1. A person from the entity contracting the construction shall act as the contact person with the representative of the appropriate reserve management unit committee (RMUC). He/she will be responsible for overseeing compliance with the protective stipulations as stated in this protocol.

2. Prior to any construction activity within the Conservation Areas, the contact person will meet with the representative of the appropriate RMUC to review the plans for the Project. The representative of the appropriate

RMUC will review alignment, pole spacing, clearing limits, burrow locations, and other specific Project plans which have the potential to affect the desert tortoise. He or she may recommend modifications to the contact person to further avoid or minimize potential impacts to desert tortoise.

3. The construction area shall be clearly fenced, marked, or flagged at the outer boundaries to define the limits of construction activities. The construction right-of-way shall normally not exceed 50 feet in width for standard pipeline corridors, access roads and transmission corridors, and shall be minimized to the maximum extent Feasible. Existing access roads shall be used when available, and rights-of-way for new and existing access roads shall not exceed 20 feet in width unless topographic obstacles require greater road width. Other construction areas including well sites, storage tank sites, substation sites, turnarounds, and laydown/staging sites which require larger areas will be determined in the pre-construction phase. All construction workers shall be instructed that their activities shall be confined to locations within the fenced, flagged, or marked areas.

4. An Acceptable Biologist shall conduct pre-construction clearance surveys of all areas potentially disturbed by the proposed Project. Any winter burrows discovered in the Conservation Areas during the pre-construction survey shall be avoided or mitigated. The survey shall be submitted to the representative of the appropriate RMUC as part of plan review.

5. All site mitigation criteria shall be determined in the pre-construction phase, including but not limited to seeding, barrier fences, leveling, and laydown/staging areas, and will be reviewed by the representative of the appropriate RMUC prior to implementation.

6. A worker education program shall be implemented prior to the onset of each construction project. All construction employees shall be required to read an educational brochure prepared by the representative of the appropriate RMUC and/or the RMOC and attend a tortoise education class prior to the onset of construction or site entry. The class will describe the sensitive species which may be found in the area, the purpose of the Multiple Species Habitat Conservation Plan Reserve System, and the appropriate measures to take upon discovery of a sensitive species. It will also cover construction techniques to minimize potential adverse impacts.

7. All pre-construction activities which could take tortoises in any manner (e.g., driving off an established road, clearing vegetation, etc.) shall occur under the supervision of an Acceptable Biologist.

8. If there are unresolvable conflicts between the representative of the appropriate RMUC and the contact person, then the matter will be arbitrated by the RMOC and, if necessary, by the CVCC.

The following terms are established to protect the desert tortoise during utility related construction activities in the Conservation Areas and are to be conducted by an Acceptable Biologist:

- An Acceptable Biologist shall oversee construction activities to ensure compliance with the protective stipulations for the desert tortoise.
- Desert tortoises found above ground inside the Project area during construction shall be moved by an Acceptable Biologist out of harm's way and placed in a winter den (at a distance no greater than 250 feet). If a winter den cannot be located, the U.S. Fish and Wildlife Service (USFWS) or California Department of Fish and Wildlife (CDFW) shall determine appropriate action with respect to the tortoise. Tortoises found above ground shall be turned over to the Acceptable Biologist.
- No handling of tortoises will occur when the air temperature at 15 centimeters above ground exceeds 90 degrees Fahrenheit.
- Desert tortoise burrows shall be avoided to the maximum extent feasible. An Acceptable Biologist shall excavate any burrows which cannot be avoided and will be disturbed by construction. Burrow excavation shall be conducted with the use of hand tools only, unless the Acceptable Biologist determines that the burrow is unoccupied immediately prior to burrow destruction.
- Only burrows within the limits of clearing and surface disturbance shall be excavated. Burrows outside these limits, but at risk from accidental crushing, shall be protected by the placement of deterrent barrier fencing between the burrow and the construction area. Installation and removal of such barrier fencing shall be under the direction and supervision of an Acceptable Biologist.
- For electrical transmission line and road construction projects, only burrows within the right-of-way shall be excavated. Burrows outside the right-of-way, but at risk from accidental crushing, shall be protected by

the placement of deterrent barrier fencing between the burrow and the right-of-way. Installation and removal of such barrier fencing shall be under the direction and supervision of an Acceptable Biologist.

- Tortoises in the Conservation Areas are not to be removed from burrows until appropriate action is determined by USFWS or CDFW with respect to the tortoise. The response shall be carried out within 72 hours.
- Blasting is not permissible within 100 feet of an occupied tortoise burrow.
- During construction, contractors will comply with the mitigation and minimization measures contained within this protocol. These measures are:
    - All trenches, pits, or other excavations shall be inspected for tortoises by an Acceptable Biologist prior to filling.
    - All pipes and culverts stored within desert tortoise Habitat shall have both ends capped to prevent entry by desert tortoises. During construction, all open ended pipeline segments that are welded in place shall be capped during periods of construction inactivity to prevent entry by desert tortoises.
    - Topsoil removed during trenching shall be re-spread on the pipeline construction area following compaction of the backfill. The area shall be restored as determined during the environmental review.
    - All test pump water will be routed to the nearest wash or natural drainage. The route will be surveyed by an Acceptable Biologist. If tortoises are found in the drainage area the Acceptable Biologist will remove the tortoises.
    - Powerlines associated with water development, such as to provide power for pumps, should be buried underground adjacent to the pipe. All above ground structures deemed to be necessary shall be equipped with functional anti-perching devices that would prevent their use by ravens and other predatory birds, and shall adhere to the electrical distribution protocol which follows.
    - In order to perform routine O&M of the water systems such as wells, pumps, water lines and storage tanks, etc., employees are to be trained in the area of desert tortoise education. This training

will be performed on a regular basis by an Acceptable Biologist for those personnel not previously trained. The training will include at a minimum the following: identification of tortoises, burrows, and other sign; and instructions on installing tortoise barrier fencing. During the course of basic O&M, desert tortoise will be avoided. Untrained employees shall not perform maintenance operations within the reserve.

- All disturbance areas around poles or concrete pads will be reduced to a size just large enough for the construction activity.
- Areas disturbed around poles or construction pads will be restored as determined during the pre-construction process.
- Poles or other above ground structures necessary for electrical distribution development shall be minimized as much as possible. All above ground structures shall be equipped with functional anti-perching devices that would prevent their use by ravens and other predatory birds.
- In order to perform routine O&M of the electrical distribution systems such as transmission lines and poles, substations, etc., employees are to be trained in the area of desert tortoise education. This training will be performed on a regular basis by a qualified biologist for those personnel not previously trained. The training will include at a minimum the following: identification of tortoises, burrows, and other sign; and instructions on installing tortoise barrier fencing. During the course of basic O&M, desert tortoise will be avoided. Untrained employees shall not perform maintenance operations within the non-take areas.
- All trash and food items shall be promptly contained and removed daily from the Project site to reduce the attractiveness of the area to common ravens and other desert tortoise predators.
- Construction activities which occur between dusk and dawn shall be limited to areas which have already been cleared of desert tortoises by the Acceptable Biologist and graded or located in a fenced right-of-way. Construction activities shall not be permitted between dusk and dawn in areas not previously graded.

Active Season Protocol

This protocol is applicable to pre-construction and construction phases of utility development projects occurring between February 15 and November 1. It is identical to the Inactive Season Protocol with the following additions:

- Work areas shall be inspected for desert tortoises within 24 hours of the onset of construction. To facilitate implementation of this condition, burrow inspection and excavation may begin no more than seven days in advance of construction activities, as long as a final check for desert tortoises is conducted at the time of construction.
- All pre-construction activities which could take tortoises in any manner (e.g., driving off an established road, clearing vegetation, etc.) shall occur under the overall supervision of an Acceptable Biologist. Any hazards to tortoises created by this activity, such as drill holes, open trenches, pits, other excavations, or any steep-sided depressions, shall be checked three times a day for desert tortoises. These hazards shall be eliminated each day prior to the work crew leaving the site, which may include installing a barrier that will preclude entry by tortoises. Open trenches, pits or other excavations will be backfilled within 72 hours, whenever possible. A 3:1 slope shall be left at the end of every open trench to allow trapped desert tortoises to escape. Trenches not backfilled within 72 hours shall have a barrier installed around them to preclude entry by desert tortoises. All trenches, pits, or other excavations shall be inspected for tortoises by a biological monitor trained and approved by the Acceptable Biologist prior to filling.
- If a desert tortoise is found, the biological monitor shall notify the Acceptable Biologist who will remove the animal as soon as possible.
- Only burrows within the limits of clearing and surface disturbance shall be excavated. Burrows outside these limits, but at risk from accidental crushing, shall be protected by the placement of deterrent barrier fencing between the burrow and the construction area. The barrier fence shall be at least 20 feet long and shall be installed to direct the tortoise leaving the burrow away from the construction area. Installation and removal of such barrier fencing shall be under the direction and supervision of the biological monitor.
- If blasting is necessary for construction, all tortoises shall be removed from burrows within 100 feet of the blast area.

Disposition of Sick, Injured, or Dead Specimens

Upon locating dead, injured, or sick desert tortoises under any utility or road project, initial notification by the contact representative or Acceptable Biologist must be made to the USFWS or CDFW within three working days of its finding. Written notification must be made within five calendar days with the following information: date; time; location of the carcass; photograph of the carcass; and any other pertinent information. Care must be taken in handling sick or injured animals to ensure effective treatment and care. Injured animals shall be taken care of by the Acceptable Biologist or an appropriately trained veterinarian. Should any treated tortoises survive, USFWS or CDFW should be contacted regarding the final disposition of the animals.

Activities Adjacent to and within a Conservation Area

Land uses adjacent to or within a Conservation Area shall incorporate barriers in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass, or dumping in a Conservation Area. Such barriers may include native landscaping, rocks/boulders, fencing, walls and/or signage. Further, engineered slopes associated with site development shall not extend into adjacent land in a Conservation Area.

Reason for Text Amendment to the Mitigation Measure: Since certification of the WECS 20 FEIR the City has become a signatory to the CVMSHCP. The desert tortoise mitigation measures previously recommended in the WECS 20 FEIR are now addressed by the Project's final JPR, and thus, the Project would comply with them by adhering to the applicable provisions outlined in the Project's final JPR.

~~**MM-BIO-29** No construction activities will occur within 100 feet of desert tortoise. If a desert tortoise is found onsite, construction activities should cease within 100 feet of the animal. The desert tortoise will be allowed to move off site of its own volition.~~

Reason for Text Amendment to the Mitigation Measure: Refer to revisions made to MM-BIO-28, above.

~~**MM-BIO-30** No construction activities will occur within 100 feet of desert tortoise burrows. Any burrows located during preconstruction desert tortoise surveys should be fenced with temporary fencing to provide a 100-foot buffer around the burrow. Fences should consist of a non-breachable barrier and support structures.~~

Reason for Text Amendment to the Mitigation Measure: Refer to revisions made to MM-BIO-28, above.

~~**MM-BIO-31** Construction activities (including parking and laydown areas) will utilize existing access roads and previously-disturbed areas to the maximum extent feasible. Temporary exclusion fencing will be placed around staging areas.~~

Reason for Text Amendment to the Mitigation Measure: Refer to revisions made to MM-BIO-28, above.

~~**MM-BIO-32** The biological monitor will supervise and approve the construction and placement of desert tortoise exclusion fence around burrows and staging areas. The biological monitor will inspect the temporary fencing at least weekly. Corrective actions will be taken promptly to maintain the integrity of the tortoise barrier. Fencing should be dismantled and removed following Project completion.~~

Reason for Text Amendment to the Mitigation Measure: Refer to revisions made to MM-BIO-28, above.

~~**MM-BIO-33** The biological monitor will maintain a complete record of all desert tortoises encountered. The record shall include: location, date and time, life history, general condition, and identification numbers.~~

Reason for Text Amendment to the Mitigation Measure: Refer to revisions made to MM-BIO-28, above.

MM-BIO-34 Any Project-related vehicle or equipment operating on unpaved roads should not exceed a speed limit of 25 miles per hour.

MM-BIO-35 Contractor will be required to keep all vehicles on existing roads. No cross-country travel will be authorized except under emergency situations.

MM-BIO-36 Employees will inspect beneath parked vehicles and equipment prior to traveling. If an employee discovers a tortoise, the employee shall notify the biological monitor.

MM-BIO-37 All trash will be contained in raven- and coyote-proof containers. All trash will be transported off site on a weekly basis.

MM-BIO-38 No pets or firearms will be allowed within the Project's construction boundaries, or other associated work areas, at any time.

MM-BIO-39 The Project will reduce water usage during construction to the extent possible, such that excess water does not act as an attractant to tortoises.

MM-BIO-40 All construction materials, vehicles, and equipment will be removed from the site upon completion of the Project.

MM-BIO-41 ~~Within 30 days prior to any construction activities, a focused burrowing owl survey will be conducted (using California Department of Fish and Game protocol) on the areas of the Project site anticipated to be disturbed (approximately 1.35 acres), plus a buffer area as recommended by the Project biologist. If ground-disturbing activities are delayed or suspended for more than 30 days after the survey, the site shall be resurveyed. A survey report for the Project shall be prepared and submitted to the California Department of Fish and Game for review and to the City for review and approval.~~ A burrowing owl survey shall be conducted in the Conservation Area using an accepted protocol (as determined by the Coachella Valley Conservation Commission in coordination with the Permittees and the wildlife agencies). Prior to development, the construction area and adjacent areas within 500 feet of the development site, or to the edge of the property if less than 500 feet, will be surveyed by an Acceptable Biologist for burrows that could be used by burrowing owl. If a burrow is located, the biologist will determine if an owl is present in the burrow. If the burrow is determined to be occupied, the burrow will be flagged and a 160-foot buffer during the non-breeding season and a 250-foot buffer during the breeding season, or a buffer to the edge of the property boundary if less than 500 feet, will be established around the burrow. The buffer will be staked and flagged. No development or operations and maintenance activities will be permitted within the buffer until the young are no longer dependent on the burrow.

If the burrow is unoccupied, the burrow will be made inaccessible to owls, and the Covered Activity may proceed. If either a nesting or escape burrow is occupied, owls shall be relocated pursuant to accepted wildlife agency protocols. A burrow is assumed occupied if records indicate that, based on surveys conducted following protocol, at least one burrowing owl has been observed occupying a burrow on site during the past three years. If there are no records for the site, surveys must be conducted to determine, prior to construction, if burrowing owls are present. Determination of the appropriate method of relocation, such as eviction/passive relocation or active relocation, shall be based on the specific site conditions (e.g., distance to nearest suitable habitat and presence of burrows within that habitat) in coordination with the wildlife agencies. Active relocation and eviction/passive relocation require the preservation and maintenance of suitable burrowing owl habitat determined through coordination with the wildlife agencies.

Reason for Text Amendment to the Mitigation Measure: Since certification of the WECS 20 FEIR the City has become a signatory to the CVMSHCP. The burrowing owl mitigation measures previously recommended in the WECS 20 FEIR is now addressed by the Project's final JPR, and thus, the Project would comply by adhering to the applicable provisions outlined in the Project's final JPR.

~~**MM-BIO-42** Any burrowing owl burrows that cannot be avoided shall be mitigated at a 2:1 ratio with artificial burrows located in an adjacent protected area that provides a minimum 0.61 acres of protected habitat. The configuration of the protected habitat shall be approved by the California Department of Fish and Game. If required by the California Department of Fish and Game, the Project applicant shall provide funding for long-term management and monitoring of the protected lands.~~

Reason for Text Amendment to the Mitigation Measure: Refer to revisions made to MM-BIO-41, above.

~~**MM-BIO-43** If burrowing owls must be moved away from the disturbance areas, passive relocation techniques shall be used and only during the non-breeding season (September 1 to January 31). If impacts to burrowing owls are approved, then a relocation program shall be developed pursuant to California Department of Fish and Game and United States Fish and Wildlife Service review and approval.~~

Reason for Text Amendment to the Mitigation Measure: Refer to revisions made to MM-BIO-41, above.

~~**MM-BIO-44** Should the Project affect the foraging areas of any owls located adjacent to the Project, then the same mitigation ratio and acreage would also be recommended.~~

Reason for Text Amendment to the Mitigation Measure: Refer to revisions made to MM-BIO-41, above. Further, the Project will not affect the foraging areas of any burrowing owl located off site.

MM-BIO-45 Impacts to waters of the United States and streambeds under the jurisdiction of the California Department of Fish and Wildlife shall be avoided wherever feasible. If avoidance is not feasible, impacts to these features shall be mitigated on 1:1 basis, unless a higher ratio is required in any permit issued by resource agencies with jurisdiction over these features. The Project Applicant will comply with the terms of any jurisdictional wetland permit(s) obtained from the California Department of Fish and Wildlife, the U.S. Army Corps of Engineers, and the Regional Water Quality Control Board ~~Applicant will avoid impacts to washes and wash vegetation~~.

Reason for Text Amendment to the Mitigation Measure: Since the certification of the 2008 WECS FEIR, the Project design has changed and now requires a small amount of fill in jurisdictional waters. This mitigation measure has been revised to address this impact.

MM-BIO-46 All proposed development will incorporate the maximum amount of existing on-site natural open space and native vegetation into the Project and landscaping.

MM-BIO-47 Applicant will salvage desirable desert plant species that would be destroyed by Project implementation, for use in landscaped areas.

MM-BIO-48 Applicant shall provide to all employees an educational brochure that describes the sensitive nature of indigenous plants, animals, and ecosystems. A copy of said educational brochure shall be submitted to the City for approval prior to issuance of any building permits.

MM-BIO-49 Prior to grading, the applicant shall develop a plan to reduce the impact of <u>non-Federal Aviation Administration required</u> night lighting on open space and/or mitigation areas adjacent to the Project site.

Reason for Text Amendment to the Mitigation Measure: Similar to all other applicable federal, state, and local regulations, the Project must adhere to FAA obstruction marking and lighting requirements.

~~**MM-BIO-50** Within 30 days prior to construction, a preconstruction survey for Coachella Valley round-tailed ground squirrel will be conducted on the areas of the Project site anticipated to be disturbed (approximately 1.35 acres), plus a buffer area as recommended by the Project biologist. If ground-disturbing activities are delayed or suspended for more than 30 days after the preconstruction survey, the site shall be resurveyed. A survey report for the Project shall be prepared and submitted to the California Department of Fish and Game for review and to the City for review and approval.~~

Reason for Text Amendment to the Mitigation Measure: The habitat assessment conducted for the Project determined that suitable habit for Coachella Valley round-tailed ground squirrel does not occur on the Project site and the Coachella Valley round-tailed ground squirrel will not otherwise be impacted by Project activities.

~~**MM-BIO-51** If found on the Project site, any squirrels must be moved away from the disturbance areas, and a relocation program shall be developed pursuant to California Department of Fish and Game review and approval.~~

Reason for Text Amendment to the Mitigation Measure: The habitat assessment conducted for the Project determined that suitable habit for Coachella Valley round-tailed ground squirrel does not occur on the Project site and the Coachella Valley round-tailed ground squirrel will not otherwise be impacted by Project activities.

MM-BIO-52 Impacts to waters of the United States and streambeds under the jurisdiction of the California Department of Fish and Wildlife shall be avoided wherever feasible. If avoidance is not feasible, impacts to these features shall be mitigated on 1:1 basis, unless a higher ratio is required in any permit issued by resource agencies with jurisdiction over these features. The Project Applicant will comply with the terms of any jurisdictional wetland permit(s) obtained from the California Department of Fish and Wildlife, the U.S. Army Corps of Engineers, and the Regional Water Quality Control Board ~~Applicant will avoid impacts to washes and wash vegetation~~.

Reason for Text Amendment to the Mitigation Measure: Since the certification of the 2008 WECS FEIR, the Project design has changed and now requires a small amount of fill in jurisdictional waters. This mitigation measure has been revised to address this impact.

MM-BIO-53 All proposed development will incorporate the maximum amount of existing on-site natural open space and native vegetation into the Project and landscaping.

MM-BIO-54 Applicant will provide to all employees an educational brochure that describes the sensitive nature of indigenous plants, animals, and ecosystems. A copy of said educational brochure shall be submitted to the City for approval prior to issuance of any building permits.

MM-BIO-55 Prior to grading, the applicant shall develop a plan to reduce the impact of non-Federal Aviation Administration required night lighting on open space and/or mitigation areas adjacent to the Project site.

Reason for Text Amendment to the Mitigation Measure: Similar to all other applicable federal, state, and local regulations, the Project must adhere to FAA obstruction marking and lighting requirements.

4.3.7 Level of Significance After Mitigation

With the incorporation of all applicable mitigation measures identified in the WECS 20 FEIR, new mitigation measures from the Project's final JPR, and the modifications made herein to address changes in law and protocol, no new or more severe impacts associated with biological resources would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR.

4.3.8 References

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4.4 CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES

This section describes the existing cultural resources of the Project area, identifies applicable regulatory requirements, evaluates potential impacts compared to impacts identified in the WECS 20 Permit Project Final Environmental Impact Report (WECS 20 FEIR), and identifies mitigation measures related to implementation of the Desert Hot Springs Wind Energy Repowering Project (Project). Although not addressed in the WECS 20 FEIR, potential impacts to tribal cultural resources are analyzed herein in order to comply with Assembly Bill (AB) 52, which added the topic of tribal cultural resources to Appendix G of the CEQA Guidelines in 2015.

In addition to the documents incorporated by reference (see Section 2.8 of Chapter 2 of this Draft Supplemental Environmental Impact Report [SEIR]), the following analysis is based on the following report, which is found in Appendix F of this Draft SEIR:

- May 2019 Cultural Resources Inventory for the Desert Hot Springs Wind Energy Repowering Project prepared by Dudek

4.4.1 Existing Conditions

The Project, as proposed, would consist of wind energy repowering within the boundaries of existing wind energy facilities owned by affiliates of the Project Applicant, Desert Hot Springs Wind, LLC. The Project consists of an approximately 160-acre area and a 1.2-mile access road and is immediately bounded by undeveloped land to the north, south, and west and by Metropolitan Water District of Southern California facilities to the east.

This section documents the results of a California Historical Resources Information System (CHRIS) search conducted at the Eastern Information Center (EIC), a search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) and tribal coordination, and an intensive-level pedestrian survey. For a complete review of the environmental and cultural context of the Project site, see the Cultural Resources Inventory (Appendix F).

California Historical Resources Information System Records Research

Dudek requested a CHRIS records search to be conducted by EIC staff in January and February 2018 for the Project and surrounding 0.5-mile radius. This search included their collections of mapped prehistoric, historic, and built-environment resources; Department of Parks and Recreation Site Records; technical reports; and ethnographic references. Additional consulted sources included historical maps of the project area; the National Register of Historic Places (NRHP); the California Register of Historical Resources (CRHR); the California Historic Property

Data File; and the lists of California State Historical Landmarks, California Points of Historical Interest, and Archaeological Determinations of Eligibility.

Previously Conducted Cultural Resource Studies

Results of the cultural resources records search indicated that between 1982 and 2010, five previous cultural resources technical investigations were conducted within 0.5 miles of the Project site. Of these, two overlap the Project site (RI-01529 and RI-06374) while the remaining three are within the records search buffer. RI-01529 describes the initial survey conducted to support the construction of the original wind turbines (Wilkie 1982) and RI-06374 describes the cultural survey conducted to support an expansion of the wind farm (Tang et al. 2005). Neither study identified any cultural resources. Details pertaining to all investigations within 0.5 miles of the Project site are listed in Table 4.4-1.

Table 4.4-1
Previous Technical Studies in the Project Site

SCCIC Report No.	Author	Date	Report Title	Proximity
01473	Wagstaff and Brady and Robert Odland Associated	1982	San Gorgonio Wind Resource Study: Environmental Impact Report/Environmental Impact Statement (Cultural Resources portion only)	Outside
01529	Wilkie, P.J.	1982	A Cultural Resources Evaluation of a Quarter-Section near Painted Hill at the Eastern Entrance to San Gorgonio Pass	Within
01915	Swenson, J.D.	1984	A Cultural Resource Survey of a Portion of Section 31, Township 2 South, Range 4 East, near Whitewater Hill, Riverside County, California	Outside
06374	Tang, B., M. Hogan, M. Wetherbee, and D. Ballester	2005	Historical/Archaeological Resources Survey Report: Windfarm Expansion Project, City of Desert Hot Springs, Riverside County, California	Within
08342	Jacquemain, T., D. Ballester, and L.H. Shaker	2010	Identification and Evaluation of Historic Properties: Painted Hills Meteorological Tower Project Northwestern Coachella Valley Riverside County, California	Outside

Source: Appendix F.

Previously Conducted Cultural Resources

The EIC records indicate that the existing access road that serves the Project site currently intersects the historic Colorado River Aqueduct (P-33-011265; CA-RIV-6726H). Five additional cultural resources have been recorded within 0.5 miles of the Project site. These five resources

consist of three prehistoric lithic scatters and two rock cairns. Details pertaining to these resources, as well as the Colorado River Aqueduct, are listed in Table 4.4-2.

Table 4.4-2
Previously Recorded Resources in the Project Site

Primary Number (P-33-)	Trinomial (CA-RIV-)	Period	NRHP/CRHR Status	Recorded By/Year	Description	Position Relative to Project Site
001388	001388	Prehistoric	Not evaluated	Lithic scatter	1976 (Morin, M., P. Welch, G. Toren, and D. Schummer)	Outside
01389	01389	Prehistoric	Not evaluated	Two flakes	1976 (Morin, M., and G. Toren)	Outside
001390	001390	Prehistoric	Not evaluated	Rock cairn	1976 (Morin, M.)	Outside
001391	001391	Prehistoric; unknown	Not evaluated	One andesite bifacial scraper and one flake	1976 (Morin, M., and G.Toren)	Outside
001392	001392	Historic	Not evaluated	Rock cairn and modern refuse scatter	1976 (Schummer, D.); 1984 (Swenson, J., and R. Milanovich)	Outside
011265	006726H	Historic	Appears eligible for listing on the individual property through survey evaluation	Colorado River Aqueduct	2000 (Goodman, J., and J. Neves SWCA Inc.); 2001 (Dice, M., L& L Environmental Inc.); 2003 (Boggs, B., G. Austerman, and L. Lee, Statistical Research Inc.); 2005 (Wilson, S., A. Craft, and M. Wise, Mooney Jones & Stokes); 2005 (Beedle, P., Applied EarthWorks Inc.); 2005 (Beedle, P., Applied EarthWorks Inc.); 2009 (DeGiovine, M., T. Martin, S. Wilson, and K. Chimel, ICF Jones & Stokes); 2011 (Kremkau, S. SRI); 2016 (Loftus, S., ACE Environmental LLC.)	Intersects

Source: Appendix F.

Site P-33-011265/CA-RIV-6726H consists of the historical Colorado River Aqueduct, which carries water from the Parker Dam on the Colorado River to Lake Mathews in western Riverside County. The approximately 242-mile-long resource was constructed starting in 1933, opened in 1939, and now provides water to the greater Los Angeles area. This resource includes open-air canals, subsurface tunnels, and other associated facilities such as pumping plants and operational facilities. The resource also includes archaeological sites from the original workers' camps and other construction facilities. As listed in Table 4.4-2, many previous studies have recommended this resource as eligible for listing on the NRHP. The Project includes the existing access road that intersects the Colorado River Aqueduct; however, this portion of the aqueduct consists of a subsurface pipe located below any proposed Project construction activities.

Map and Historic Aerial Photography Research

Historic aerial maps show that the Project site was undeveloped for much of the twentieth century. Interstate 10 and State Route 62 are visible on the earliest historic map, dating to 1944. There are also several unimproved roads in the area to the south and east of the Project site. By 1960, the Colorado River Aqueduct was built directly east of the Project site—this was the first major development in the direct vicinity of the Project site. The roads associated with the existing commercial wind energy facility appear on topographic maps in 1988. By 1996, construction of the wind energy facility is visible on aerial photographs; this has been the only development within the Project area (NETR 2018).

Cultural Resources Survey

A cultural resources survey of the Project site was conducted on March 15 and 16, and May 8, 2018. The survey team examined the area where the Colorado River Aqueduct (P-33-011265; CA-RIV 6726H) intersects the existing Project access road. Although there is evidence of the installation of the Colorado River Aqueduct in the form of extensive earthmoving, this subterranean portion of the resource is not visible on the ground surface. No new resources were observed during the intensive pedestrian survey of the Project area.

4.4.2 Relevant Plans, Policies, and Procedures

Federal

The National Register of Historic Places

The NRHP is the United States' official list of districts, sites, buildings, structures, and objects worthy of preservation. Overseen by the National Park Service, under the U.S. Department of the Interior, the NRHP was authorized under the National Historic Preservation Act of 1966, as

amended (16 USC 470 et seq.). Its listings encompass all National Historic Landmarks, as well as historic areas administered by the National Park Service.

NRHP guidelines for the evaluation of historic significance were developed to be flexible and to recognize the accomplishments of all who have made significant contributions to the nation's history and heritage. Its criteria are designed to guide state and local governments, federal agencies, and others in evaluating potential entries in the NRHP. For a property to be listed in or determined eligible for listing in the NRHP, it must be demonstrated to possess integrity and to meet at least one of the following criteria:

> The quality of significance in American history, architecture, archaeology, 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 our history; or
>
> B. That are associated with the lives of persons significant in 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.

Integrity is defined in NRHP guidance, How to Apply the National Register Criteria, as "the ability of a property to convey its significance. To be listed in the NRHP, a property must not only be shown to be significant under the NRHP criteria, but it also must have integrity" (NPS 2002). Historic properties either retain integrity (convey their significance) or they do not. Within the concept of integrity, the National Register criteria recognizes seven aspects or qualities that define integrity. The seven aspects of integrity are locations, setting, design, materials, workmanship, feeling and association. In order to retain historic integrity "a property will always possess several, and usually most, of the aspects" (NPS 2002).

NRHP guidance further asserts that properties be completed at least 50 years ago to be considered for eligibility. Properties completed fewer than 50 years before evaluation must be proven to be "exceptionally important" (criteria consideration G) to be considered for listing.

State

The California Register of Historical Resources (California Public Resources Code, Section 5020 et seq.)

In California, the term "historical resource" includes "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (California Public Resources Code [PRC] Section 5020.1(j)). In 1992, the California legislature established the CRHR "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1(a)). The criteria for listing resources in the CRHR were expressly developed to be in accordance with previously established criteria developed for listing in the NRHP, enumerated below. According to PRC Section 5024.1(c)(1–4), a resource is considered historically significant if it (i) retains "substantial integrity" and (ii) meets at least one of the following criteria:

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.

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the NRHP, and properties listed or formally designated as eligible for listing in the NRHP are automatically listed in the CRHR, as are state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

California Environmental Quality Act

The following California Environmental Quality Act (CEQA) statutes (PRC Section 21000 et seq.) and CEQA Guidelines (14 CCR 15000 et seq.) are of relevance to the analysis of archaeological, historic, and tribal cultural resources:

- PRC Section 21083.2(g) defines "unique archaeological resource."

- PRC Section 21084.1 and CEQA Guidelines Section 15064.5(a) define "historical resources." In addition, CEQA Guidelines Section 15064.5(b) defines the phrase "substantial adverse change in the significance of an historical resource"; it also defines the circumstances when a project would materially impair the significance of a historical resource.
- PRC Section 21074(a) defines "tribal cultural resources."
- PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e) set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony.
- PRC Sections 21083.2(b) and 21083.2(c) and CEQA Guidelines Section 15126.4 provide information regarding the mitigation framework for archaeological and historic resources, including examples of preservation-in-place mitigation measures. Preservation in place is the preferred manner of mitigating impacts to significant archaeological sites because it maintains the relationship between artifacts and the archaeological context, and may also help avoid conflict with religious or cultural values of groups associated with an archaeological site.

Under CEQA, a project may have a significant impact on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (PRC Section 21084.1; 14 CCR 15064.5(b)). If a site is listed or eligible for listing in the CRHR, or included in a local register of historic resources, or identified as significant in a historical resources survey (meeting the requirements of PRC Section 5024.1(q)), it is a "historical resource" and is presumed to be historically or culturally significant for the purposes of CEQA (PRC Section 21084.1; 14 CCR 15064.5(a)). The lead agency is not precluded from determining that a resource is a historical resource even if it does not fall within this presumption (PRC Section 21084.1; 14 CCR 15064.5(a)).

A "substantial adverse change in the significance of an historical resource" reflecting a significant impact under CEQA means "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (14 CCR 15064.5(b)(1); PRC Section 5020.1(q)). In turn, the significance of a historical resource is materially impaired when a project does any of the following:

1. Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or
2. Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the

effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

3. Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a lead agency for purposes of CEQA (14 CCR 15064.5(b)(2)).

Pursuant to these sections, the CEQA inquiry begins with evaluating whether a project site contains any "historical resources," then evaluates whether that project will cause a substantial adverse change in the significance of a historical resource such that the resource's historical significance is materially impaired.

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (PRC Sections 21083.2(a)–(c)).

Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which 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 (PRC Section 21083.2(g)):

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

Impacts on non-unique archaeological resources are generally not considered a significant environmental impact (PRC Section 21083.2(a); 14 CCR 15064.5(c)(4)). However, if a non-unique archaeological resource qualifies as a tribal cultural resource (PRC Sections 21074(c) and 21083.2(h)), further consideration of significant impacts is required.

CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. As described below, these procedures are detailed in PRC Section 5097.98.

California Health and Safety Code 7050.5

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains can occur until the county coroner has examined the remains (Health and Safety Code Section 7050.5(b)). PRC Section 5097.98 also outlines the process to be followed in the event that remains are discovered. If the coroner determines or has reason to believe that the remains are those of a Native American, the coroner must contact the NAHC within 24 hours (Health and Safety Code Section 7050.5(c)). The NAHC then notifies the "most likely descendant." With the permission of the landowner, the most likely descendant may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the most likely descendant by the NAHC. The most likely descendant may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

Assembly Bill 52

The legislature added the requirements regarding tribal cultural resources through AB 52. By including tribal cultural resources early in the CEQA process, the legislature intended to ensure that local and tribal governments, public agencies, and project proponents would have information available, early in the project planning process, to identify and address potential adverse impacts to tribal cultural resources. By taking this proactive approach, the legislature also intended to reduce the potential for delay and conflicts in the environmental review process (AB 52 Section 1(b)(7)). To accomplish those goals, the legislature added or amended the following sections in the Public Resources Code: 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 5097.94 (OPR 2015).

Local

City of Desert Hot Springs

City of Desert Hot Springs General Plan

The City's General Plan was developed to guide the future land use and development patterns within the City's planning area, which includes lands contained in the City boundary and unincorporated lands adjacent to the City's borders identified as areas likely to be serviced or annexed by the City in the future. As discussed in the General Plan, policies pertaining to cultural and tribal cultural resources are addressed in Archaeological and Historic Resources Element of the General Plan. Policies associated with cultural and tribal cultural resources are presented as follows (City of Desert Hot Springs 2000).

Archaeological and Historic Resources Element

The Archaeological and Historic Resources Element of the General Plan (City of Desert Hot Springs 2000) provides a summary of the cultural and historical traditions of the City of Desert Hot Springs and its vicinity. It also provides the basis for the identification of and planning for present-day cultural activities and traditions. The Archaeological and Historic Resources Element is intended to briefly describe the documented pre-history and history of Desert Hot Springs, and set forth goals, policies, and programs that preserve this heritage and help perpetuate it for future generations.

Goal: Preservation and maintenance of cultural heritage and resources, including historic and prehistoric cultural artifacts and traditions.

Policy 1: The City shall exercise its responsibility to locate, identify and evaluate archaeological, historical and cultural sites, and assure that appropriate action is taken to protect these resources

Policy 2: Development or land use proposals, which have the potential to disturb or destroy sensitive cultural resources, shall be evaluated by a qualified professional

Policy 3: Make every effort to ensure the protection of sensitive archaeological and historic resources from vandalism and illegal collection.

Policy 4: The City shall support the listing of eligible properties, structures or sites as potential historic landmarks and their inclusion in the National Register of Historic Places.

4.4.3 Thresholds of Significance

The significance criteria used to evaluate the project's impacts to cultural resources are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to cultural resources would occur if the project would:

1. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5. (*The WECS 20 FEIR previously found this impact to be less than significant with mitigation incorporated.)*
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. (*The WECS 20 FEIR previously found this impact to be less than significant with mitigation incorporated.)*

3. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (*The WECS 20 FEIR previously found this impact to be less than significant with mitigation incorporated.)*
4. Disturb any human remains, including those interred outside of formal cemeteries. (*The WECS 20 FEIR previously found this impact to be less than significant.)*
5. 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 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). (*The WECS 20 FEIR did not directly address Tribal Cultural Resources; thus, no significance determination was previously made.)*
6. 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 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. (*The WECS 20 FEIR did not directly address Tribal Cultural Resources; thus, no significance determination was previously made.)*

4.4.4 Impacts Analysis

Would the project cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?

The Project site consists of an approximately 160-acre area and a 1.2-mile access road. A CHRIS and SLF search, including an intensive pedestrian survey, was conducted in support of the proposed Project. As a result of the study, only one resource was identified within the Project site. This previously recorded resource consists of the NRHP-recommended Colorado River Aqueduct (P-33-011265; CA-RIV-6726H). This resource underlies the existing access road that leads to/from the main part of the Project site where the current and planned turbines are located, as confirmed by the intensive pedestrian survey. Because the Project, as proposed, would not result in subsurface earthwork activities in this portion of the access road, this resource will not be impacted by the Project.

Additionally, the pedestrian survey did not result in the identification of previously unidentified cultural resources. The terrain is hilly with steep slopes and ridges throughout; disturbances observed within the Project site are associated with the existing wind energy facility, including the wind turbines themselves, access roads, and graded laydown yards. Because of the steep terrain and existing disturbance caused by the construction of the current wind energy facility, no previously unidentified cultural resources are anticipated. As such, the Project would result in no impact on historical resources.

Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?

As previously discussed, no other previously or newly recorded cultural or built-environment resources have been identified as a result of the records search, NAHC SLF search, or intensive pedestrian survey. Due to the steep terrain and disturbance caused by the construction of the existing commercial wind energy facility, no cultural resources are expected. Notwithstanding, given that there is always a possibility—albeit remote in this case—that subsurface construction activities can encounter resources that are currently unrecorded but may underlie the Project site, the Project would be required to adhere to Mitigation Measure (MM) CUL-56, MM-CUL-57 and MM-CUL-58, which would further minimize the Project's potential impacts to cultural/archaeological resources.

Therefore, with incorporation of mitigation, no new or more severe impacts associated with cultural/archaeological resources would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR (less than significant with mitigation incorporated). No new mitigation measures are required.

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

As stated in the WECS 20 FEIR, according to the paleontological sensitivity analysis previously conducted for the Project site, the potential for construction activities to impact paleontological resources is considered to be high. Although on-site rock conditions were determined to not be ideal for the preservation of vertebrate fossil remains, the rocks date to both the early and late Pleistocene Epoch, and there may be gravelly sand lenses within the conglomerates where fossil remains may be preserved. No fossil specimens are known from the Project site; however, vertebrate localities are recorded in the area, and the fossilized remains of an extinct horse (*Equus*) and camel (*Camelidae*) have been recorded from the southeast in the Seven Palms Valley and the Indio Hills, respectively, as noted in the records search results obtained from the Natural History Museum of Los Angeles County. Excavations for construction activities, including turbine foundation excavations, are anticipated to extend at least 10 feet below the ground surface. Thus,

significant nonrenewable fossil remains may be encountered during construction. As determined in the WECS 20 FEIR, incorporation of MM-CUL-59 and MM-CUL-60 would reduce potential impacts to paleontological resources to a level of insignificance.

Therefore, with incorporation of mitigation, no new or more severe impacts associated with paleontological resources would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR (less than significant with mitigation incorporated). No new mitigation measures are required.

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

In accordance with Section 7050.5 of the California Health and Safety Code and MM-CUL-61, if human remains are found, the Riverside County Coroner shall be notified within 24 hours of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, they shall notify the NAHC in Sacramento within 48 hours. In accordance with PRC, Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descended from the deceased Native American. The most likely descendent shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

Therefore, no new or more severe impacts associated with human remains would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR. No new mitigation measures are required.

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 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)?

As addressed above, the records search and intensive pedestrian survey of the Project site identified one resource—the NRHP-recommended Colorado River Aqueduct (P-33-011265; CA-RIV-6726H)—which is not considered a tribal cultural resource. No other previously or newly recorded cultural or built-environment resources have been identified as a result of the records search, NAHC SLF search, or intensive pedestrian survey. Due to the steep terrain and disturbance caused

by the construction of the existing commercial wind energy facility, no tribal cultural resources are anticipated. Therefore, impacts would be less than significant in regard to tribal cultural resources, defined in PRC Section 21074, that are listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC Section 5020.1(k).

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 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?

As part of the process of identifying cultural resources within or near the Project site, Dudek contacted the NAHC on February 22, 2018, to request a review of its SLF. The NAHC emailed a response on February 23, 2018, which stated that the SLF search was completed with negative results. NAHC also provided a list of 35 Native American groups and individuals who may have knowledge of cultural resources in the Project area. A letter was sent to each representative on March 27, 2018. To date, eight responses have been received. Documents related to the NAHC SLF search and initial Native American outreach efforts are included in Appendix F.

The Project is subject to compliance with AB 52 (PRC 21074), which requires consideration of impacts to "tribal cultural resources" as part of the CEQA process, and requires the City of Desert Hot Springs, as the CEQA Lead Agency, to notify any groups who have requested notification of proposed projects and who are traditionally or culturally affiliated with the geographic area of the project. In compliance with AB 52, the City initiated consultation with interested Native American tribes on February 27, 2018, after completing an initial assessment as to whether the available materials for the Project were sufficient to begin the consultation process. In response to the City's AB 52 notification letters, the following Tribes replied to the City's invitation to consult on the Project:

- In a letter dated March 12, 2018, the Morongo Band of Mission Indians indicated that the Project site is located within the Tribe's aboriginal territory and/or within an area considered to be a traditional use area for the Tribe. The Tribe recommended that a records search be conducted at CHRIS Archaeological Information Centers and the search results be provided to the Tribe. In addition, the Tribe requests that a Tribal monitor be present during an initial pedestrian field survey, and, if the survey has already occurred, that a copy of the Cultural Resources Inventory be sent to them.

- In a letter dated March 21, 2018, the Soboba Band of Luiseno Indians requested to initiate formal consultation with the City pursuant to AB 52.
- In a letter dated March 27, 2018, the Twenty-Nine Palms Band of Mission Indians requested that a copy of the Cultural Resources Inventory be sent to them prior to making their final recommendations.

As addressed above, no other previously or newly recorded cultural or built-environment resources have been identified as a result of the records search, NAHC SLF search, or intensive pedestrian survey. Due to the steep terrain and disturbance caused by the construction of the existing commercial wind energy facility, no cultural resources are expected. However, given that there is always a possibility that subsurface construction activities can encounter resources that are currently unrecorded but may underlie the Project site, the Project would be required to adhere to MM-CUL-56, which requires Native American monitoring during ground-disturbing activities, and MM-CUL-57 and MM-CUL-58, which require certain steps to be taken if an unexpected find is made during Project construction. Collectively, these measures would further minimize the Project's potential impacts to cultural/archaeological resources. Therefore, with incorporation of mitigation, less than significant impacts associated with tribal cultural resources would occur.

4.4.5 Cumulative Impacts

The geographic scope of the cumulative cultural resources analysis is the surrounding area in the vicinity of the Project site. Ongoing development and growth in the broader Project area could result in a cumulatively significant impact to cultural and tribal cultural resources due to the both ongoing and future disturbance of undeveloped areas, which could potentially contain significant, buried historic, archaeological, paleontological, or tribal cultural resources.

Cumulative impacts analysis for cultural and tribal cultural resources evaluates whether impacts of the Project and related projects, when taken as a whole, substantially diminish the number of historic, archaeological, paleontological, and tribal cultural resources within the same or similar context or property type. As discussed throughout this section, while the Project could potentially have significant impacts to currently unknown resources that may underlie the Project site, mitigation has been identified to reduce adverse impacts to less than significant levels. In addition, it is expected that off-site cultural and tribal cultural resources that are affected by related projects would also be subject to the same requirements of CEQA as the Project, and thus, would mitigate to offset their impacts. The determinations of significance would be made on a case-by-case basis, and the effects of cumulative development on cultural resources would be mitigated in accordance with CEQA and other applicable legal requirements. The Project would not contribute to a cumulatively considerable impact associated with cultural resources due to the fact that individual, Project-level impacts to cultural and tribal cultural resources will be mitigated to a less than significant level. Therefore, impacts associated with cultural and tribal cultural resources would not be cumulatively considerable.

4.4.6 Mitigation Measures

The Project would be required to comply with the following applicable cultural resources mitigation measures adopted by the City of Desert Hot Springs as part of the WECS 20 FEIR:

MM-CUL-56 An approved Tribal Cultural Resource Monitor shall be present during any survey and/or any ground-disturbing activities. Should buried cultural deposits be encountered, the Monitor may request that destructive construction halt and the Monitor shall notify a Qualified (Secretary of the Interior's Standards and Guidelines) Archaeologist to investigate and, if necessary, prepare a mitigation plan for submission to the State Historic Preservation Officer, the Agua Caliente Tribal Historic Preservation Office, the Morongo Band of Mission Indians, the Twenty-Nine Palms Band of Mission Indians, and the Soboba Band of Luiseño Indians.

Reason for Text Amendment to the Mitigation Measure: The Twenty-Nine Palms Band of Mission Indians has been consulted with as part of the AB 52 tribal consultation process; as such, this Tribe has been added to the list of tribes that would receive and review the mitigation plan.

MM-CUL-57 If buried cultural materials are discovered during any earth-moving operation associated with the Project, all work in that area should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds. The archaeologist shall be empowered to temporarily stop or redirect grading activities to allow removal of abundant or large artifacts. The archaeologist shall also be required to curate specimens in a repository with permanent retrievable storage and submit a written report to the City's Community Development ~~Planning~~ Director for review and approval prior to the issuance of the first building permit ~~occupancy of the first building~~ on the site.

Reason for Text Amendment to the Mitigation Measure: This mitigation measure has been updated to clarify that the City's Community Development Director would review the written report. Also, given that no buildings will be constructed on the Project site, the mitigation measure has also been updated to clarify that the written report, if required, shall be approved prior to the issuance of the first building permit.

MM-CUL-58 Once artifact analysis is completed, a final written report detailing the results of all research procedures and interpretation of the site shall be submitted to the City's Community Development Director for review and approval prior to the issuance of the first building permit ~~occupancy of the first building~~ on the site.

Reason for Text Amendment to the Mitigation Measure: This mitigation measure has been updated to clarify that the City's Community Development Director would review the written report. Also, given that no buildings will be constructed on the Project site, the mitigation measure has also been updated to clarify that the written report, if required, shall be approved prior to the issuance of the first building permit.

MM-CUL-59 A qualified paleontologist shall review the Project construction plans and shall create a plan for periodic monitoring in order to determine the presence or absence of older Pleistocene-age sediments that may contain fossils. If earth-moving activities reach potentially fossiliferous sediments and/or exceed 10 feet in depth, then continuous monitoring for paleontological resources, along with a program to mitigate impacts to those resources, would be implemented. The monitor should be prepared to quickly salvage fossils as they are unearthed to avoid construction delays.

MM-CUL-60 If buried paleontological materials are discovered during any earth-moving operations associated with the Project, all work in that area would be halted or diverted until a qualified paleontological monitor can evaluate the nature and significance of the finds. The paleontological monitor would be empowered to temporarily stop or redirect grading activities to allow removal of abundant or large artifacts. The paleontological monitor shall also be required to curate specimens in a repository with permanent retrievable storage and submit a written report and inventory to the City's Community Development Director for review and approval prior to the issuance of the first building permit ~~occupancy of the first building~~ on the site. The report should include a discussion of the significance of all recovered specimens. The report and inventory, when submitted to the City's Community Development Director, would signify completion of the Program to mitigate impacts to paleontological resources.

Reason for Text Amendment to the Mitigation Measure: This mitigation measure has been updated to clarify that the City's Community Development Director would review the written report. Also, given that no buildings will be constructed on the Project site, the mitigation measure has also been updated to clarify that the written report, if required, shall be approved prior to the issuance of the first building permit.

MM-CUL-61 If human remains are encountered at the Project site during construction, the Riverside County Coroner shall be notified within 24 hours of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner

determines that the remains are, or are believed to be, Native American, she or he shall notify Native American Heritage Commission (NAHC) in Sacramento within 48 hours. In accordance with California Public Resources Code, Section 5097.98, NAHC must immediately notify those persons it believes to be the Most Likely Descendant (MLD) of the deceased Native American. The MLD shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains ~~County Coroner would be notified immediately, and all construction activities would be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds~~.

Reason for Text Amendment to the Mitigation Measure: This mitigation measure has been updated to be consistent with current regulatory protocols pertaining to the accidental discovery of possible human remains during Project construction.

4.4.7 Level of Significance After Mitigation

With the incorporation of all applicable mitigation measures identified in the WECS 20 FEIR, no new or more severe impacts associated with cultural and tribal cultural resources would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR. No new mitigation measures are required.

4.4.8 References

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Tang, B., M. Hogan, M. Wetherbee, and D. Ballester. 2005. Historical/Archaeological Resources Survey Report: Windfarm Expansion Project, City of Desert Hot Springs, Riverside County, California

Wilkie, P.J. 1982. A Cultural Resources Evaluation of a Quarter-Section near Painted Hill at the Eastern Entrance to San Gorgonio Pass.

4.5 GREENHOUSE GAS EMISSIONS

This section describes the existing greenhouse gases (GHG) setting within the Project area, identifies applicable regulatory requirements, evaluates potential impacts compared to the impacts identified in the WECS 20 Permit Project Final Environmental Impact Report (WECS 20 FEIR), and identifies mitigation measures related to implementation of the Desert Hot Springs Wind Energy Repowering Project (Project). Although not addressed in the WECS 20 FEIR, potential impacts related to GHGs are analyzed herein in order to comply the current version of Appendix G of the CEQA Guidelines, which started including impact questions pertaining to GHG emissions in 2010.

In addition to the documents incorporated by reference (see Section 2.8 of Chapter 2, Introduction, of this Draft Supplemental Environmental Impact Report [Draft SEIR]), the following analysis is based on the following source, which is found in Appendix D of this Draft SEIR:

- April 2019 Air Quality and Greenhouse Gas Emissions Analysis Technical Report for the Desert Hot Springs Wind Energy Repowering Project prepared by Dudek

4.5.1 Existing Conditions

Climate Change Overview

Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind patterns, lasting for an extended period of time (decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system. Many factors, both natural and human, can cause changes in the Earth's energy balance, including variations in the Sun's energy reaching the Earth, changes in the reflectivity of the Earth's atmosphere and surface, and changes in the greenhouse effect, which affect the amount of heat retained by the Earth's atmosphere (EPA 2017a).

The greenhouse effect is the trapping and build-up of heat in the atmosphere (troposphere) near the Earth's surface. The greenhouse effect traps heat in the troposphere through the following threefold process: Short-wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long-wave radiation; and GHGs in the upper atmosphere absorb this long-wave radiation and emit it into space and toward the Earth. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature and creates a pleasant, livable environment on the Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, enhancing the greenhouse effect and causing the Earth's surface temperature to rise.

The scientific record of the Earth's climate shows that the climate system varies naturally over a wide range of time scales, and that, in general, climate changes prior to the Industrial Revolution in the 1760s

can be explained by natural causes such as changes in solar energy, volcanic eruptions, and natural changes in GHG concentrations. Recent climate changes, in particular the warming observed over the past century, however, cannot be explained by natural causes alone. Rather, it is extremely likely that human activities have been the dominant cause of that warming since the mid-twentieth century and are the most significant driver of observed climate change (IPCC 2013; EPA 2017a). Human influence on the climate system is evident from the increasing GHG concentrations in the atmosphere, positive radiative forcing,[1] observed warming, and improved understanding of the climate system (IPCC 2013). The atmospheric concentrations of GHGs have increased to levels unprecedented in the last 800,000 years, primarily from fossil fuel emissions and secondarily from emissions associated with land use changes (IPCC 2013). Continued emissions of GHGs will cause further warming and changes in all components of the climate system, which is discussed further in Section 3.3.2 of Appendix D, Potential Effects of Climate Change.

Greenhouse Gases

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code, Section 38505(g), for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3). (See also CEQA Guidelines Section 15364.5.)[2] Some GHGs such as CO_2, CH_4, and N_2O occur naturally and are emitted into the atmosphere through natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Manufactured GHGs, which have a much greater heat-absorption potential than CO_2, include fluorinated gases such as HFCs, PFCs, and SF_6, which are associated with certain industrial products and processes. The following paragraphs provide a summary of the most common GHGs and their sources.[3]

Carbon Dioxide. CO_2 is a naturally occurring gas and a by-product of human activities and is the principal anthropogenic GHG that affects the Earth's radiative balance. Natural sources of CO_2 include respiration of bacteria, plants, animals, and fungus; evaporation from oceans; volcanic out-gassing;

1 Radiative forcing or climate forcing is the difference between insolation (sunlight) absorbed by the Earth and energy radiated back to space. The influences that cause changes to the Earth's climate system, altering the Earth's radiative equilibrium and forcing temperatures to rise or fall, are called climate forcings. Positive radiative forcing means the Earth receives more incoming energy from sunlight than it radiates to space.

2 Climate forcing substances include GHGs and other substances such as black carbon and aerosols. This discussion focuses on the seven GHGs identified in the California Health and Safety Code, Section 38505, as impacts associated with other climate forcing substances are not evaluated herein.

3 The descriptions of GHGs are summarized from the Intergovernmental Panel on Climate Change (IPCC) Second Assessment Report (IPCC 1995), IPCC Fourth Assessment Report (2007), the California Air Resources Board's (CARB's) "Glossary of Terms Used in GHG Inventories" (CARB 2015), and EPA's "Glossary of Climate Change Terms" (EPA 2016).

and decomposition of dead organic matter. Human activities that generate CO_2 are from the combustion of fuels such as coal, oil, natural gas, and wood and changes in land use.

Methane. CH_4 is produced through both natural and human activities. CH_4 is a flammable gas and is the main component of natural gas. Methane is produced through anaerobic (without oxygen) decomposition of waste in landfills, flooded rice fields, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion.

Nitrous Oxide. N_2O is produced through natural and human activities, mainly through agricultural activities and natural biological processes, although fuel burning and other processes also create N_2O. Sources of N_2O include soil cultivation practices (microbial processes in soil and water), especially the use of commercial and organic fertilizers, manure management, industrial processes (e.g., in nitric acid production, nylon production, and fossil-fuel-fired power plants), vehicle emissions, and the use of N_2O as a propellant (e.g., in rockets, racecars, and aerosol sprays).

Fluorinated Gases. Fluorinated gases (also referred to as F-gases) are synthetic, powerful GHGs emitted from many industrial processes. Fluorinated gases are commonly used as substitutes for stratospheric O_3-depleting substances (e.g., chlorofluorocarbons, hydrochlorofluorocarbons, and halons). The most prevalent fluorinated gases include the following:

- **Hydrofluorocarbons:** HFCs are compounds containing only hydrogen, fluorine, and carbon atoms. HFCs are synthetic chemicals used as alternatives to ozone (O_3)-depleting substances in serving many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are used in manufacturing.
- **Perfluorocarbons:** PFCs are a group of human-made chemicals composed of carbon and fluorine only. These chemicals were introduced as alternatives, with HFCs, to the O_3-depleting substances. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Since PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere, these chemicals have long lifetimes, ranging between 10,000 and 50,000 years.
- **Sulfur Hexafluoride:** SF_6 is a colorless gas soluble in alcohol and ether and slightly soluble in water. SF_6 is used for insulation in electric power transmission and distribution equipment, semiconductor manufacturing, the magnesium industry, and as a tracer gas for leak detection.

Nitrogen Trifluoride: NF_3 is used in the manufacture of a variety of electronics, including semiconductors and flat panel displays.

Global Warming Potential

Gases in the atmosphere can contribute to climate change both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo) (EPA 2016). The Intergovernmental Panel on Climate Change (IPCC) developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram of a trace substance relative to that of 1 kilogram of a reference gas (IPCC 2014). The reference gas used is CO_2; therefore, GWP-weighted emissions are measured in metric tons of CO_2 equivalent (MT CO_2e).

The current version of CalEEMod (version 2016.3.2) assumes that the GWP for CH_4 is 25 (so emissions of 1 MT of CH_4 are equivalent to emissions of 25 MT of CO_2) (CAPCOA 2017), and the GWP for N_2O is 298, based on the IPCC Fourth Assessment Report (IPCC 2007). The GWP values identified in CalEEMod were applied to the Project.

4.5.2 Relevant Plans, Policies, and Procedures

Federal

Massachusetts vs. EPA. On April 2, 2007, in *Massachusetts v. EPA*, the Supreme Court directed the U.S. Environmental Protection Agency (EPA) Administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the EPA Administrator is required to follow the language of Section 202(a) of the federal Clean Air Act. On December 7, 2009, the Administrator signed a final rule with the following two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

- The Administrator found that elevated concentrations of GHGs—CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6—in the atmosphere threaten the public health and welfare of current and future generations. This is referred to as the "endangerment finding."
- The Administrator further found the combined emissions of GHGs—CO_2, CH_4, N_2O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is referred to as the "cause or contribute finding."

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act.

Energy Independence and Security Act. On December 19, 2007, President George W. Bush signed the Energy Independence and Security Act of 2007. Among other key measures, the act would do the following, which would aid in the reduction of national GHG emissions:

1. Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
2. Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
3. Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

Federal Vehicle Standards. In response to the previously discussed U.S. Supreme Court ruling, the Bush Administration issued Executive Order (EO) 13432 in 2007 directing the EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016 (EPA 2010).

In 2010, President Barack Obama issued a memorandum directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards are projected to achieve 163 grams per mile of CO_2 in model year 2025, on an average industry-fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021. On January 12, 2017, the EPA finalized its decision to maintain the current GHG emissions standards for model years 2022–2025 cars and light trucks (EPA 2017b).

In addition to the regulations applicable to cars and light-duty trucks previously described, in 2011, EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO_2 emissions and fuel consumption are

tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6%–23% over the 2010 baselines.

In August 2016, EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018–2027 for certain trailers, and model years 2021–2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion MT and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program (EPA and NHTSA 2016).

Clean Power Plan and New Source Performance Standards for Electric Generating Units. On October 23, 2015, EPA published a final rule (effective December 22, 2015) establishing the Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (80 FR 64510–64660), also known as the Clean Power Plan. These guidelines prescribe how states must develop plans to reduce GHG emissions from existing fossil-fuel-fired electric generating units. The guidelines establish CO_2 emission performance rates representing the best system of emission reduction for two subcategories of existing fossil-fuel-fired electric generating units: (1) fossil-fuel-fired electric utility steam-generating units, and (2) stationary combustion turbines. Concurrently, the EPA published a final rule (effective October 23, 2015) establishing Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units (80 FR 64661–65120). The rule prescribes CO_2 emission standards for newly constructed, modified, and reconstructed affected fossil-fuel-fired electric utility generating units. The U.S. Supreme Court stayed implementation of the Clean Power Plan pending resolution of several lawsuits. Additionally, in March 2017, President Trump directed the EPA Administrator to review the Clean Power Plan in order to determine whether it is consistent with current executive policies concerning GHG emissions, climate change, and energy.

Council on Environmental Quality Guidance. On August 5, 2016, the Council on Environmental Quality (CEQ) released final guidance for federal agencies on considering the impacts of GHG emissions (CEQ 2016). This guidance supersedes the draft GHG and climate change guidance released by CEQ in 2010 and 2014. The final guidance applies to all proposed federal agency actions, including land and resource management actions. This guidance explains that agencies should consider both the potential effects of a proposed action on climate change, as indicated by its estimated GHG emissions, and the implications of climate change for the environmental effects of a proposed action. The guidance recommends that agencies quantify a proposed agency action's projected direct and indirect GHG emissions, taking into account available data and GHG quantification tools that are suitable for the proposed agency action. This

guidance was withdrawn by the CEQ on April 5, 2017, as published in the Federal Register Volume 82, Number 64, Section 16576 (CEQ 2017).

State

The statewide GHG emissions regulatory framework is summarized below by category: state climate change targets, building energy, renewable energy and energy procurement, mobile sources, solid waste, water, and other state regulations and goals. The following text describes executive orders, legislation, regulations, and other plans and policies that would directly or indirectly reduce GHG emissions and/or address climate change issues.

State Climate Change Targets

Executive Order S-3-05. EO S-3-05 (June 2005) established the following statewide goals: GHG emissions should be reduced to 2000 levels by 2010, GHG emissions should be reduced to 1990 levels by 2020, and GHG emissions should be reduced to 80% below 1990 levels by 2050.

AB 32 and CARB's Climate Change Scoping Plan. In furtherance of the goals established in EO S-3-05, the legislature enacted Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020.

Under AB 32, the California Air Resources Board (CARB) is responsible for and is recognized as having the expertise to carry out and develop the programs and requirements necessary to achieve the GHG emissions reduction mandate of AB 32. Under AB 32, CARB must adopt regulations requiring the reporting and verification of statewide GHG emissions from specified sources. This program is used to monitor and enforce compliance with established standards. CARB also is required to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 relatedly authorized CARB to adopt market-based compliance mechanisms to meet the specified requirements. Finally, CARB is ultimately responsible for monitoring compliance and enforcing any rule, regulation, order, emission limitation, emission reduction measure, or market-based compliance mechanism adopted.

In 2007, CARB approved a limit on the statewide GHG emissions level for year 2020 consistent with the determined 1990 baseline (427 million MT (MMT) CO_2e). CARB's adoption of this limit is in accordance with California Health and Safety Code, Section 38550.

Further, in 2008, CARB adopted the *Climate Change Scoping Plan: A Framework for Change* (Scoping Plan) in accordance with California Health and Safety Code, Section 38561. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions for various emission sources/sectors to 1990 levels by 2020. The Scoping Plan evaluates opportunities for sector-specific reductions,

integrates all CARB and Climate Action Team early actions and additional GHG reduction features by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program. The key elements of the Scoping Plan include the following (CARB 2008):

1. Expanding and strengthening existing energy efficiency programs as well as building and appliance standards.
2. Achieving a statewide renewable energy mix of 33%.
3. Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85% of California's GHG emissions.
4. Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets.
5. Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard (LCFS).
6. Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation.

In the Scoping Plan, CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of approximately 28.5% from the otherwise projected 2020 emissions level (i.e., those emissions that would occur in 2020, absent GHG-reducing laws and regulations (referred to as "Business-As-Usual" (BAU)). For purposes of calculating this percent reduction, CARB assumed that all new electricity generation would be supplied by natural gas plants; no further regulatory action would impact vehicle fuel efficiency; and building energy efficiency codes would be held at 2005 standards.

In the 2011 Final Supplement to the Scoping Plan's Functional Equivalent Document, CARB revised its estimates of the projected 2020 emissions level in light of the economic recession and the availability of updated information about GHG reduction regulations. Based on the new economic data, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of 21.7% (down from 28.5%) from the BAU conditions. When the 2020 emissions level proposed projection also was updated to account for newly implemented regulatory measures, including Pavley I (model years 2009–2016) and the Renewable Portfolio Standard (RPS) (12% to 20%), CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of 16% (down from 28.5%) from the BAU conditions.

More recently, in 2014, CARB adopted the *First Update to the Climate Change Scoping Plan: Building on the Framework* (First Update). The stated purpose of the First Update is to "highlight California's success to date in reducing its GHG emissions and lay the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80% below 1990 levels by 2050." The First Update found that California is on track to meet the 2020 emissions reduction mandate established by AB 32 and noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce emissions to 80% below 1990 levels by 2050 if the state realizes the expected benefits of existing policy goals.

In conjunction with the First Update, CARB identified "six key focus areas comprising major components of the state's economy to evaluate and describe the larger transformative actions that will be needed to meet the state's more expansive emission reduction needs by 2050." Those six areas are (1) energy, (2) transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure), (3) agriculture, (4) water, (5) waste management, and (6) natural and working lands. The First Update identifies key recommended actions for each sector that will facilitate achievement of EO S-3-05's 2050 reduction goal.

Based on research efforts presented in the First Update, CARB has a "strong sense of the mix of technologies needed to reduce emissions through 2050." Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies.

As part of the First Update, CARB recalculated the state's 1990 emissions level using more recent GWPs identified by the IPCC. Using the recalculated 1990 emissions level (431 MMT CO_2e) and the revised 2020 emissions level proposed projection identified in the 2011 Final Supplement, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of approximately 15% (instead of 28.5% or 16%) from the BAU conditions.

On January 20, 2017, CARB released the *2017 Climate Change Scoping Plan Update* (Second Update) for public review and comment (CARB 2017). This update proposes CARB's strategy for achieving the state's 2030 GHG target as established in Senate Bill (SB) 32 (discussed subsequently), including continuing the Cap-and-Trade Program through 2030, and includes a new approach to reduce GHGs from refineries by 20%. The Second Update incorporates approaches to cutting short-lived climate pollutants (SLCPs) under the *Short-Lived Climate Pollutant Reduction Strategy* (SLCP Reduction Strategy), a planning document that was adopted by CARB in March 2017, and acknowledges the need for reducing emissions in agriculture and highlights the work underway to ensure that California's natural and working lands increasingly sequester carbon. During development of the Second Update, CARB held a number of public workshops in the Natural and Working Lands, Agriculture, Energy and Transportation sectors to inform

development of the 2030 Scoping Plan Update (CARB 2017). When discussing project-level GHG emissions reduction actions and thresholds, the Second Update states achieving no net increase in GHG emissions is the correct overall objective, but it may not be appropriate or feasible for every development project. An inability to mitigate a proposed project's GHG emissions to zero does not necessarily imply a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA. The Second Update was approved by CARB's Governing Board on December 14, 2017.

EO B-30-15. EO B-30-15 (April 2015) identified an interim GHG reduction target in support of targets previously identified under S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing statewide GHG emissions to 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing statewide GHG emissions to 80% below 1990 levels by 2050 as set forth in S-3-05. To facilitate achievement of this goal, EO B-30-15 calls for an update to CARB's Scoping Plan to express the 2030 target in terms of MMT CO_2e. The EO also calls for state agencies to continue to develop and implement GHG emission reduction programs in support of the reduction targets. Sector-specific agencies in transportation, energy, water, and forestry were required to prepare GHG reduction plans by September 2015, followed by a report on action taken in relation to these plans in June 2016. EO B-30-15 does not require local agencies to take any action to meet the new interim GHG reduction target.

SB 32 and AB 197. SB 32 and AB 197 (enacted in 2016) are companion bills that set a new statewide GHG reduction targets; make changes to CARB's membership, and increase legislative oversight of CARB's climate change-based activities; and expand dissemination of GHG and other air quality-related emissions data to enhance transparency and accountability. More specifically, SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40% below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, in order to provide ongoing oversight over implementation of the state's climate policies. AB 197 also added two members of the legislature to CARB as nonvoting members; requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and toxic air contaminants from reporting facilities; and, requires CARB to identify specific information for GHG emissions reduction measures when updating the scoping plan.

EO B-55-18. EO B-55-18 (September 2018) established a state goal to achieve carbon neutrality no later than 2045, and achieve and maintain net negative emissions thereafter. EO B-55-18 directs CARB to work with state agencies to develop a framework for implementation and accounting that tracks progress for this goal and to include measures in the next Scoping Plan update to achieve carbon neutrality by 2045.

SB 100. SB 100 (enacted September 2018) increased existing RPS targets and added new targets. Specifically, the total kilowatt hours of energy sold by electricity retailers to their end-use customers must consist of at least 50% renewable resources by December 31, 2026; 60% renewable resources by December 31, 2030; and 100% renewable resources by 2045.

SB 605 and SB 1383. SB 605 (2014) requires CARB to complete a comprehensive strategy to reduce emissions of SLCPs in the state; and SB 1383 (2016) requires CARB to approve and implement that strategy by January 1, 2018. SB 1383 also establishes specific targets for the reduction of SLCPs (40% below 2013 levels by 2030 for methane and HFCs, and 50% below 2013 levels by 2030 for anthropogenic black carbon), and provides direction for reductions from dairy and livestock operations and landfills. Accordingly, and as previously mentioned, CARB adopted its SLCP Reduction Strategy in March 2017. The SLCP Reduction Strategy establishes a framework for the statewide reduction of emissions of black carbon, methane, and fluorinated gases.

Building Energy

Title 24, California Code of Regulations, Part 6. Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically establishes Building Energy Efficiency Standards that are designed to ensure new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. The California Energy Commission (CEC) is required by law to adopt standards every 3 years that are cost effective for homeowners over the 30-year lifespan of a building. These standards are updated to consider and incorporate new energy efficient technologies and construction methods. As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

The 2016 Title 24 standards are the currently applicable building energy efficiency standards, and became effective on January 1, 2017. The 2016 Title 24 standards will further reduce energy used and associated GHG emissions. In general, single-family homes built to the 2016 standards are anticipated to use about 28% less energy for lighting, heating, cooling, ventilation, and water heating than those built to the 2013 standards; and nonresidential buildings built to the 2016 standards will use an estimated 5% less energy than those built to the 2013 standards (CEC 2015a). The Project would be required to comply with incumbent version of the Title 24 standards; which, if construction commences prior to January 1, 2020, would be the 2016 Title 24 standards.

Title 24, California Code of Regulations, Part 11. In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as

California's Green Building Standards (CALGreen), and establishes minimum mandatory standards and voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential and state-owned buildings and schools and hospitals. The CALGreen 2016 standards became effective on January 1, 2017. The mandatory standards require the following (24 CCR Part 11):

- Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings.
- Mandatory reduction in outdoor water use through compliance with a local water efficient landscaping ordinance or the California Department of Water Resources' Model Water Efficient Landscape Ordinance.
- 65% of construction and demolition waste must be diverted from landfills.
- Mandatory inspections of energy systems to ensure optimal working efficiency.
- Inclusion of electric vehicle charging stations or designated spaces capable of supporting future charging stations.
- Low-pollutant emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle boards.

The CALGreen standards also include voluntary efficiency measures that are provided at two separate tiers and implemented at the discretion of local agencies and applicants. CALGreen's Tier 1 standards call for a 15% improvement in energy requirements; stricter water conservation, 65% diversion of construction and demolition waste, 10% recycled content in building materials, 20% permeable paving, 20% cement reduction, and cool/solar-reflective roofs. CALGreen's more rigorous Tier 2 standards call for a 30% improvement in energy requirements, stricter water conservation, 75% diversion of construction and demolition waste, 15% recycled content in building materials, 30% permeable paving, 25% cement reduction, and cool/solar-reflective roofs.

The California Public Utilities Commission (CPUC), CEC, and CARB also have a shared, established goal of achieving zero net energy (ZNE) for new construction in California. The key policy timelines include (1) all new residential construction in California will be ZNE by 2020, and (2) all new commercial construction in California will be ZNE by 2030.[4] As most recently defined by the CEC in its 2015 *Integrated Energy Policy Report*, a ZNE code building is "one

[4] See CPUC, California's Zero Net Energy Policies and Initiatives, September 18, 2013, accessed at http://www.cpuc.ca.gov/NR/rdonlyres/C27FC108-A1FD-4D67-AA59-7EA82011B257/0/3.pdf. It is expected that achievement of the ZNE goal will occur through revisions to the Title 24 standards.

where the value of the energy produced by on-site renewable energy resources is equal to the value of the energy consumed annually by the building" using the CEC's Time Dependent Valuation metric (CEC 2015b).

Title 20, California Code of Regulations. Title 20 of the California Code of Regulations requires manufacturers of appliances to meet state and federal standards for energy and water efficiency. Performance of appliances must be certified through the CEC to demonstrate compliance with standards. New appliances regulated under Title 20 include refrigerators, refrigerator-freezers, and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwaters; clothes washers and dryers; cooking products; electric motors; low voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing for each type of appliance covered under the regulations and appliances must meet the standards for energy performance, energy design, water performance, and water design. Title 20 contains the following three types of standards for appliances: federal and state standards for federally regulated appliances, state standards for federally regulated appliances, and state standards for non-federally regulated appliances.

SB 1. SB 1 (2006) established a $3 billion rebate program to support the goal of the state to install rooftop solar energy systems with a generation capacity of 3,000 megawatts (MW) through 2016. SB 1 added sections to the Public Resources Code, including Chapter 8.8 (California Solar Initiative), that require building proposed projects applying for ratepayer-funded incentives for photovoltaic systems to meet minimum energy efficiency levels and performance requirements. Section 25780 established that it is a goal of the state to establish a self-sufficient solar industry in which solar energy systems are a viable mainstream option for both homes and businesses within 10 years of adoption, and to place solar energy systems on 50% of new homes within 13 years of adoption. SB 1, also termed "GoSolarCalifornia," was previously titled "Million Solar Roofs."

AB 1470. This bill established the Solar Water Heating and Efficiency Act of 2007. The bill makes findings and declarations of the legislature relating to the promotion of solar water heating systems and other technologies that reduce natural gas demand. The bill defines several terms for purposes of the act. The bill requires the commission to evaluate the data available from a specified pilot program and, if it makes a specified determination, to design and implement a program of incentives for the installation of 200,000 solar water heating systems in homes and businesses throughout the state by 2017.

AB 1109. Enacted in 2007, AB 1109 required the CEC to adopt minimum energy efficiency standards for general purpose lighting, to reduce electricity consumption 50% for indoor residential lighting and 25% for indoor commercial lighting.

Mobile Sources

AB 1493. In a response to the transportation sector accounting for more than half of California's CO_2 emissions, AB 1493 was enacted in July 2002. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles that are primarily used for noncommercial personal transportation in the state. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. When fully phased in, the near-term (2009–2012) standards will result in a reduction of about 22% in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term (2013–2016) standards will result in a reduction of about 30%.

EO S-1-07. Issued on January 18, 2007, EO S-1-07 sets a declining LCFS for GHG emissions measured in CO_2e grams per unit of fuel energy sold in California. The target of the LCFS is to reduce the carbon intensity of California passenger vehicle fuels by at least 10% by 2020. The carbon intensity measures the amount of GHG emissions in the lifecycle of a fuel, including extraction/feedstock production, processing, transportation, and final consumption, per unit of energy delivered. CARB adopted the implementing regulation in April 2009. The regulation is expected to increase the production of biofuels, including those from alternative sources, such as algae, wood, and agricultural waste.

SB 375. SB 375 (2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 required CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035. Regional metropolitan planning organizations (MPOs) are then responsible for preparing a Sustainable Communities Strategy (SCS) within their Regional Transportation Plan (RTP). The goal of the SCS is to establish a forecasted development pattern for the region that, after considering transportation measures and policies, will achieve, if feasible, the GHG reduction targets. If an SCS is unable to achieve the GHG reduction target, an MPO must prepare an Alternative Planning Strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

Pursuant to Government Code, Section 65080(b)(2)(K), an SCS does not (i) regulate the use of land; (ii) supersede the land use authority of cities and counties; or (iii) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it. Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the state-mandated housing element process. In 2010, CARB adopted the SB 375 targets for the regional MPOs. The targets for the Coachella Valley Association of Governments (CVAG) are a 10.5% reduction in emissions per capita by 2020 and a 15.4% reduction by 2035.

Advanced Clean Cars Program. In January 2012, CARB approved the Advanced Clean Cars program, a new emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars (CARB 2012). To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025 cars will emit 75% less smog-forming pollution than the average new car sold today. To reduce GHG emissions, CARB, in conjunction with the EPA and the NHTSA, has adopted new GHG standards for model year 2017 to 2025 vehicles; the new standards are estimated to reduce GHG emissions by 34% in 2025. The Zero Emissions Vehicle (ZEV) Program will act as the focused technology of the Advanced Clean Cars Program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles in the 2018 to 2025 model years. The Clean Fuels Outlet regulation will ensure that fuels such as electricity and hydrogen are available to meet the fueling needs of the new advanced technology vehicles as they come to the market.

EO B-16-12. EO B-16-12 (2012) directs state entities under the Governor's direction and control to support and facilitate development and distribution ZEVs. This EO also sets a long-term target of reaching 1.5 million zero-emission vehicles on California's roadways by 2025. On a statewide basis, EO B-16-12 also establishes a GHG emissions reduction target from the transportation sector equaling 80% less than 1990 levels by 2050. In furtherance of this EO, the Governor convened an Interagency Working Group on Zero-Emission Vehicles that has published multiple reports regarding the progress made on the penetration of ZEVs in the statewide vehicle fleet.

AB 1236. AB 1236 (2015) as enacted in California's Planning and Zoning Law, requires local land use jurisdictions to approve applications for the installation of electric vehicle charging stations, as defined, through the issuance of specified permits unless there is substantial evidence in the record that the proposed installation would have a specific, adverse impact upon the public health or safety, and there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact. The bill provides for appeal of that decision to the planning commission, as specified. The bill requires local land use jurisdictions with a population of 200,000 or more residents to adopt an ordinance, by September 30, 2016, that creates an expedited and streamlined permitting process for electric vehicle charging stations, as specified. The City's population does not exceed 200,000 so this statute does not apply. Prior to this statutory deadline, in August 2016, the County of San Diego's Board of Supervisors adopted Ordinance No. 10437 adding a section to its County Code related to the expedited processing of electric vehicle charging stations permits consistent with AB 1236.

SB 350. In 2015, SB 350—the Clean Energy and Pollution Reduction Act—was enacted into law. As one of its elements, SB 350 establishes a statewide policy for widespread electrification of the

transportation sector, recognizing that such electrification is required for achievement of the state's 2030 and 2050 reduction targets (see Public Utilities Code, Section 740.12).

Renewable Energy and Energy Procurement

SB 1078. SB 1078 (2002) established the RPS program, which requires an annual increase in renewable generation by the utilities equivalent to at least 1% of sales, with an aggregate goal of 20% by 2017. This goal was subsequently accelerated, requiring utilities to obtain 20% of their power from renewable sources by 2010.

SB 1368. SB 1368 (2006) requires the CEC to develop and adopt regulations for GHG emission performance standards for the long-term procurement of electricity by local, publicly owned utilities. These standards must be consistent with the standards adopted by the CPUC. This effort will help protect energy customers from financial risks associated with investments in carbon-intensive generation by allowing new capital investments in power plants whose GHG emissions are as low as or lower than new combined-cycle natural gas plants by requiring imported electricity to meet GHG performance standards in California and by requiring that the standards be developed and adopted in a public process.

SB X1 2. SB X1 2 (2011) expanded the RPS by establishing that 20% of the total electricity sold to retail customers in California per year by December 31, 2013, and 33% by December 31, 2020, and in subsequent years be secured from qualifying renewable energy sources. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 MW or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and that meets other specified requirements with respect to its location. In addition to the retail sellers previously covered by the RPS, SB X1 2 added local, publicly owned electric utilities to the RPS.

SB 350. SB 350 (2015) further expanded the RPS by establishing that 50% of the total electricity sold to retail customers in California per year by December 31, 2030, be secured from qualifying renewable energy sources. In addition, SB 350 includes the goal to double the energy efficiency savings in electricity and natural gas final end uses (e.g., heating, cooling, lighting, or class of energy uses on which an energy-efficiency program is focused) of retail customers through energy conservation and efficiency. The bill also requires the CPUC, in consultation with the CEC, to establish efficiency targets for electrical and gas corporations consistent with this goal.

Water

EO B-29-15. In response to the ongoing drought in California, EO B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25% relative to water use in 2013. The term of the EO extended through February 28, 2016, although many of the directives

have since become permanent water-efficiency standards and requirements. The EO includes specific directives that set strict limits on water usage in the state. In response to EO B-29-15, the California Department of Water Resources has modified and adopted a revised version of the Model Water Efficient Landscape Ordinance that, among other changes, significantly increases the requirements for landscape water use efficiency and broadens its applicability to include new development proposed projects with smaller landscape areas.

Solid Waste

AB 939 and AB 341. In 1989, AB 939, known as the Integrated Waste Management Act (California Public Resources Code, Sections 40000 et seq.), was passed because of the increase in waste stream and the decrease in landfill capacity. The statute established the California Integrated Waste Management Board, which oversees a disposal reporting system. AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25% by 1995 and 50% by the year 2000.

AB 341 (2011) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75% of solid waste generated be source-reduced, recycled, or composted by the year 2020 and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery (CalRecycle) to develop strategies to achieve the state's policy goal. CalRecycle has conducted multiple workshops and published documents that identify priority strategies that CalRecycle believes would assist the state in reaching the 75% goal by 2020.

Increasing the amount of commercial solid waste that is recycled, reused, or composted will reduce GHG emissions primarily by (1) reducing the energy requirements associated with the extraction, harvest, and processing of raw materials; and (2) using recyclable materials that require less energy than raw materials to manufacture finished products (CalRecycle 2012). Increased diversion of organic materials (green and food waste) will also reduce GHG emissions (CO_2 and CH_4) resulting from decomposition in landfills by redirecting this material to processes that use the solid waste material to produce vehicle fuels, heat, electricity, or compost.

Other State Regulations and Goals

EO S-13-08. EO Order S-13-08 (November 2008) is intended to hasten California's response to the impacts of global climate change, particularly sea-level rise. Therefore, the EO directs state agencies to take specified actions to assess and plan for such impacts. The final *2009 California Climate Adaptation Strategy* report was issued in December 2009 (CNRA 2009), and an update, *Safeguarding California: Reducing Climate Risk,* followed in July 2014 (CNRA 2014). To assess the state's vulnerability, the report summarizes key climate change impacts to the state for the

following areas: agriculture, biodiversity and habitat, emergency management, energy, forestry, ocean and coastal ecosystems and resources, public health, transportation, and water. Issuance of the Safeguarding California: Implementation Action Plans followed in March 2016 (CNRA 2016). In January 2018, the CNRA released the Safeguarding California Plan: 2018 Update, which communicates current and needed actions that state government should take to build climate change resiliency (CNRA 2018).

Local

South Coast Air Quality Management District

Air districts typically act in an advisory capacity to local governments in establishing the framework for environmental review of air pollution impacts under CEQA. This may include recommendations regarding significance thresholds, analytical tools to estimate emissions and assess impacts, and mitigations for potentially significant impacts. Although air districts will also address some of these issues on a proposed project-specific basis as responsible agencies, they may provide general guidance to local governments on these issues (SCAQMD 2008). As discussed in Section 4.5.3, Thresholds of Significance, the South Coast Air Quality Management District (SCAQMD) has recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development proposed projects; however, these thresholds were not adopted. See Section 4.2.2, South Coast Air Quality Management District, in Section 4.2, Air Quality, of this Draft SEIR, for additional discussion on the SCAQMD.

Southern California Association of Governments

SB 375 requires MPOs to prepare an SCS in their RTP. As the CVAG is not a MPO, the Southern California Association of Governments (SCAG) is the MPO for the Coachella Valley and the Project area. The SCAG Regional Council adopted the 2012 RTP/SCS in April 2012 (SCAG 2012), and the 2016–2040 RTP/SCS (2016 RTP/SCS) was adopted in April 2016 (SCAG 2016). Both the 2012 and 2016 RTP/SCSs establish a development pattern for the region that, when integrated with the transportation network and other policies and measures, would reduce GHG emissions from transportation (excluding goods movement). Specifically, the 2012 RTP/SCS links the goals of sustaining mobility with the goals of fostering economic development; enhancing the environment; reducing energy consumption; promoting transportation-friendly development patterns; and encouraging all residents affected by socioeconomic, geographic, and commercial limitations to be provided with fair access. The 2012 and 2016 RTP/SCSs do not require that local general plans, specific plans, or zoning be consistent with it but provide incentives for consistency for governments and developers. The current SCAQMD Air Quality Management Plan (2016 AQMP) is based on the SCAG 2016 RTP/SCS demographic growth forecasts for various

socioeconomic categories (e.g., population, housing, employment by industry) developed by SCAG for their 2016–2040 RTP/SCS, the SCAG 2016 RTP/SCS. The SCAG 2016 RTP/SCS takes into account demographic growth forecasts developed by CVAG.

City of Desert Hot Springs

City of Desert Hot Springs General Plan

The City's General Plan was developed to guide the future land use and development patterns within the City's planning area, which includes lands contained in the City boundary and unincorporated lands adjacent to the City's borders identified as areas likely to be serviced or annexed by the City in the future. As discussed in the General Plan, policies pertaining to GHG are addressed in Air Quality Element and in the Energy and Mineral Resources Element of the General Plan. Policies associated with GHG are presented as follows (City of Desert Hot Springs 2000).

Air Quality Element

Policy 3: The City shall promote the development of pedestrian-oriented retail centers, as well as community-wide multi-use trails and bike paths, dedicated bike lanes and other desirable alternatives to motor vehicle traffic.

Policy 4: The City shall promote the appropriate and cost-effective development and coordination of mass transit/shuttle service linking residential, shopping, resort and commercial centers of the City, and participate with CVAG, Southern California Association of Governments and public and private service providers to improve and optimize regional transportation services.

Policy 5: The City shall encourage the use of clean alternative energy sources for transportation, heating and cooling whenever practical.

Energy and Mineral Resources Element

Policy 1: Promote energy conservation in all areas of community development, including transportation, development planning, public and private sector office construction and operation, as well as in the full range of residential, commercial and industrial projects.

Policy 2: The General Plan and other community plans shall assure an efficient circulation system and land use pattern in the City, which minimizes travel.

Policy 3: Major mixed-use developments, which provide significant employment centers, shall be required to provide convenient and safe access to the public transit system.

Policy 5: Support public and private efforts to develop and operate alternative systems of thermal and electrical production, which take advantage of local renewable resources.

City of Desert Hot Springs Climate Action Plan

In May 2013, the City's first-ever Climate Action Plan (CAP) was released (City of Desert Hot Springs 2013). The CAP addresses the major sources of GHG emissions within the City including residential, business, building, transportation, municipal, hospitality/recreation, and education. For each GHG emission source, the CAP suggests a number of programs or policies that can be implemented by the City to meet its goals. These programs and policies are linked with the City's GHG inventory. A portfolio of 80 measures has been presented for implementation over 8 years. Some of the measures are already planned or in process, and are included because of their anticipated impact. Each recommendation carries information about results and costs to the community and the City. Only a subset of the measures is required to reach the City's emissions reductions targets. The CAP is the root of a comprehensive suite of sustainability services including the City's 2013 Greenhouse Gas Inventory, its 2013 Energy Action Plan, the Voluntary Green Building Program, a municipal building Energy Benchmarking Policy, and a municipal building Retro Commissioning Policy. Together, these plans, programs, and policies support the CAP and help position the City for cost-effective, energy-efficiency savings, and GHG reductions. The CAP was developed to be consistent with AB 32 and reaching the City's 1990 emission levels by 2020. The measures within the CAP were developed to ensure the City reaches that goal. The City's CAP is not a qualified GHG reduction plan under CEQA Guidelines Section 15183.5, and thus it cannot be used in a cumulative impacts analysis to determine significance.

4.5.3 Thresholds of Significance

Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.) provides guidance for evaluating whether a development project may result in significant impacts. Based on Appendix G of the CEQA Guidelines, the Project would have a significant impact on air quality if the Project would:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?). (*The WECS 20 FEIR did not directly address GHG emissions; thus, no significance determination was previously made.)*

2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs? (*The WECS 20 FEIR did not directly address GHG emissions; thus, no significance determination was previously made.)*

Global climate change is a cumulative impact; a proposed project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. In addition, while GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008), GHG emissions impacts must also be evaluated on a proposed project-level under CEQA.

South Coast Air Quality Management District

Neither the State of California nor SCAQMD has adopted emission-based thresholds of significance for GHG emissions under CEQA. However, in October 2008, SCAQMD proposed recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development proposed projects as presented in its *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* (SCAQMD 2008). This guidance document, which builds on the previous guidance prepared by the California Air Pollution Control Officers Association (CAPCOA), explored various approaches for establishing a significance threshold for GHG emissions. The draft interim CEQA thresholds guidance document was not adopted or approved by the Governing Board. However, in December 2008, SCAQMD adopted an interim 10,000 MT CO_2e per year screening level threshold for stationary source/industrial proposed projects for which SCAQMD is the lead agency (see SCAQMD Resolution No. 08-35, December 5, 2008).

SCAQMD formed a GHG CEQA Significance Threshold Working Group to work with SCAQMD staff on developing GHG CEQA significance thresholds until statewide significance thresholds or guidelines are established. From December 2008 to September 2010, SCAQMD hosted working group meetings and revised the draft threshold proposal several times, although it did not officially provide these proposals in a subsequent document. SCAQMD has continued to consider adoption of significance thresholds for residential and general land use development proposed projects. The most recent proposal, issued in September 2010, uses the following tiered approach to evaluate potential GHG impacts from various uses (SCAQMD 2010):

Tier 1 Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.

Tier 2 Consider whether or not the proposed project is consistent with a locally adopted GHG reduction plan that has gone through public hearing and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.

Tier 3 Consider whether the proposed project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 MT CO_2e per year

threshold for industrial uses would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential proposed projects (3,500 MT CO_2e per year), commercial proposed projects (1,400 MT CO_2e per year), and mixed-use proposed projects (3,000 MT CO_2e per year). Under option 2, a single numerical screening threshold of 3,000 MT CO_2e per year would be used for all non-industrial proposed projects. If the proposed project generates emissions in excess of the applicable screening threshold, move to Tier 4.

Tier 4 Consider whether the proposed project generates GHG emissions in excess of applicable performance standards for the proposed project service population (population plus employment). The efficiency targets were established based on the goal of AB 32 to reduce statewide GHG emissions to 1990 levels by 2020. The 2020 efficiency targets are 4.8 MT CO_2e per service population for proposed project level analyses and 6.6 MT CO_2e per service population for plan level analyses. If the proposed project generates emissions in excess of the applicable efficiency targets, move to Tier 5.

Tier 5 Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the proposed project efficiency target to Tier 4 levels.

Because the Project is construction only and does not fit into one of the land use types previously outlined, this analysis applies the recommended SCAQMD threshold of 3,000 MT CO_2e per year. Per the SCAQMD guidance, construction emissions should be amortized over the operational life of the Project, which is assumed to be 30 years (SCAQMD 2008). This impact analysis, therefore, compares the amortized construction emissions to the proposed SCAQMD threshold of 3,000 MT CO_2e per year.

Approach and Methodology

CalEEMod Version 2016.3.2 was used to estimate potential Project-generated GHG emissions during construction. Construction of the Project would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. All details for construction criteria air pollutants discussed in Section 4.2.4 of this Draft SEIR are also applicable for the estimation of construction-related GHG emissions. The CalEEMod operations module was used to estimate GHG emissions from the water used for dust suppression during construction of the project. As such, see Section 4.2.4 for a discussion of construction emissions calculation methodology and assumptions.

4.5.4 Impacts Analysis

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

The Project would not generate substantial GHG emissions, either directly or indirectly, that may have a significant impact on the environment, as further discussed below:

Short-Term Construction Emissions

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

CalEEMod was used to calculate the annual GHG emissions based on the construction scenario described in the Air Quality and Greenhouse Gas (GHG) Emissions Analysis Technical Report (Appendix D), including decommissioning of the existing turbines and construction of the proposed Project. Construction of the Project is anticipated to commence in November 2018 and would last approximately 13 months, ending in December 2019. Although this construction assumption is no longer possible, the modeling provided a more conservative determination of emission concentrations, because the air quality model assumes annual improvements in technologies and equipment. As a result, although actual construction of the proposed Project will not occur until late 2019, the analysis provided herein is conservative, and actual emissions are likely to be marginally lower than presented. On-site sources of GHG emissions include off-road equipment and off-site sources, including trucks and worker vehicles. Table 4.5-1 presents construction emissions for the Project in 2018 and 2019 from on-site and off-site emission sources.

Table 4.5-1
Estimated Annual Construction Greenhouse Gas Emissions

Year	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
2018	110.85	0.02	0.00	111.28
2019	476.98	0.08	0.00	479.06
			Total	**590.34**
			30-Year Amortization of Construction Emissions	*19.68*

Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent
GHG emissions from water use for dust suppression were modeled in the operational module within CalEEMod.
See Appendix D for complete results.

As shown in Table 4.5-1, the estimated total GHG emissions during construction would be approximately 590 MT CO_2e over the construction period. Estimated Project-generated construction emissions amortized over 30 years would be approximately 20 MT CO_2e per year.

As with Project-generated construction criteria air pollutant emissions, GHG emissions generated during Project construction 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.

Long-Term Operational Emissions

There would be no operational GHG emissions for the Project as there would be no increased operations activity due to the Project.[5] The amortized construction GHG emissions do not exceed the 3,000 MT CO_2e per year threshold, and the Project-generated GHG emissions would result in a less-than-significant impact.

In keeping with the renewable energy target per *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target* (CARB 2017), and as required by SB 350, the Project would provide a source of renewable energy to achieve the RPS of 60% by 2030. Renewable energy, in turn, potentially offsets GHG emissions generated by fossil-fuel power plants. Based on information from the Project Applicant, the current site produces approximately 7,860 megawatt hours (MWh) of electricity per year. The Project would produce an estimated 59,000 MWh of electricity per year. The Project would produce an additional 51,140 MWh per year compared to the existing turbines (59,000 MWh minus 7,860 MWh).

In order to quantify the benefits of the increase in renewable energy production, the existing fossil fuel production must be evaluate from the local utility. The latest published GHG emission factor for Southern California Edison (SCE) is 0.256 MT CO_2e/MWh (SCE 2017). SCE reported that 28% of its power mix was renewable in 2016. Therefore, the nonrenewable GHG emission factor would be 0.356 MT CO_2e/MWh. Thus, the Project would provide a potential reduction of 18,206 MT CO_2e per year if the renewable electricity generated by the Project were to be used instead of electricity generated by fossil-fuel sources. Annualized construction emissions are calculated to be approximately 20 MT CO_2e per year. Thus, the net reduction in GHG emissions would be 18,186 MT CO_2e per year, resulting in a total of 545,580 MT CO_2e over the 30-year Project lifetime. This reduction is not considered in the significance determination of the Project's GHG emissions but is provided for disclosure purposes.

[5] To operate the existing wind energy facilities, the Project Applicant and its affiliates employ approximately 10 people in the broader Desert Hot Springs area. Once repowered, a similarly sized operations team would continue to work on the Project and on the Project site. In addition, the number of routine operations and maintenance (O&M)-related trips would also not change, and, given that the number of on-site turbines is being reduced, the amount of O&M activities (and trips associated with these activities) would likely decrease.

Future Decommissioning Emissions

The Project lifespan would be at least 30 years. When the proposed facility is decommissioned, the four wind turbines would be removed from the Project site and the materials would be reused or sold for scrap. Decommissioning activities are anticipated to result in similar intensity of impacts as those associated with decommissioning of the existing wind turbines. Impacts associated with future decommissioning of the Project's new wind turbines would be less than those impacts related to decommissioning of the existing 69 wind turbines that are currently found on site, because the intensity of development that currently occurs on the site will require substantially more demolition than the demolition of four turbines at the end of their useful lives.

Summary

Decommissioning and construction of the current Project is expected to generate the equivalent of 19.68 MT CO_2e per year, amortized over the 30-year life of the project. Although not previously studied, the intensity of construction required for the project proposed in the WECS 20 FEIR was much higher than that of the currently proposed Project. In addition, construction equipment required at the time the WECS 20 FEIR was prepared would have been greater in number, and would have had substantially less stringent emission control mechanisms, than would those required today. The existing project's construction emissions amortization period is over, and the currently proposed Project will increase GHG emissions by a much lower amount. In addition, the proposed Project will result in beneficial impacts associated with on-site renewable energy production, as described above. Therefore, the Project's generation of GHG emissions would not be significant, and no mitigation measures are required.

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

The Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases, as further discussed below:

Consistency with the City of Desert Hot Springs's Climate Action Plan

Table 4.5-2 provides an overview of the measures and goals within the CAP that are applicable to the Project and the Project's consistency with them. As shown in Table 4.5-2, the Project does not conflict with any of the GHG reducing measures or goals within the CAP and, thus, is consistent with the plan. It should also be noted that the Project would not inhibit the City from implementing any of the measures not listed in Table 4.5-2 because they do not apply to the Project.

Table 4.5-2
Project Consistency with the Climate Action Plan
Greenhouse Gas Emission Reduction Strategies

Sphere	Climate Action Plan Measure	Project Consistency
Where we live – 14	**Solid Waste Diversion:** Increase solid waste diversion rate by an additional 10% to 78.1% by 2020 potentially through awareness programs, recognition, tiered rate structures, and other financial instruments.	**Consistent.** The Project would divert its solid waste in accordance with state and local regulations.
How we build – 4	**Green Building Program:** Promote the voluntary Green Building Program to prepare for enhanced Title 24 requirements and green building standards.	**Consistent.** The Project would be constructed in accordance with the building code adopted at the time of construction.
How we build – 5	**Green Building Support Services:** Advance the Voluntary Green Building Program to mandatory green building requirement with technical support services.	**Consistent.** The Project would be constructed in accordance with the building code, including green building requirements, adopted at the time of construction.
How we get around – 14	**Anti-Idling:** Pass ordinance that restricts idling of greater than 5 minutes for all commercial vehicles in specific zones. In accordance with CARB rules regarding idling of commercial Vehicles.	**Consistent.** The Project's vehicles will limit idling during construction to no longer than 5 minutes.

Source: City of Desert Hot Springs 2013.

Consistency with SCAG's 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy

SCAG's 2016 RTP/SCS is a regional growth-management strategy that targets per-capita GHG reduction from passenger vehicles and light-duty trucks in the Southern California region. The 2016 RTP/SCS incorporates local land use proposed project projections and circulation networks in city and county general plans. The 2016 RTP/SCS is not directly applicable to the Project because the underlying purpose of the 2016 RTP/SCS is to provide direction and guidance by making the best transportation and land use choices for future development. Because the Project does not alter the current use of the property and does not induce growth during operation, development of the Project would not conflict with the critical goals of the 2016 RTP/SCS.

Consistency with CARB's Scoping Plan

The Scoping Plan (approved by CARB in 2008 and updated in 2014 and 2017) provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. The Scoping Plan is not directly applicable to specific projects, nor is it intended to be used for project-level

evaluations.[6] Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-global warming potential GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., LCFS), among others.

The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of SB 32 and establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. Table 4.5-3 highlights measures that have been, or will be, developed under the Scoping Plan and the Project's consistency with Scoping Plan measures. To the extent that these regulations are applicable to the Project, its inhabitants, or uses, the Project would comply will all regulations adopted in furtherance of the Scoping Plan as required by law.

Table 4.5-3
Project Consistency with Scoping Plan Greenhouse Gas Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
Transportation Sector		
Advanced Clean Cars	T-1	**Consistent**. Vehicles used on the Project site would be in compliance with CARB vehicle standards that are in effect at the time of vehicle purchase.
Low Carbon Fuel Standard	T-2	**Consistent**. Motor vehicles driven by the Project's employees would use compliant fuels.
Regional Transportation-Related GHG Targets	T-3	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Advanced Clean Transit	N/A	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Last-Mile Delivery	N/A	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Reduction in Vehicle Miles Traveled	N/A	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Vehicle Efficiency Measures 1. Tire Pressure 2. Fuel Efficiency Tire Program 3. Low-Friction Oil 4. Solar-Reflective Automotive Paint and Window Glazing	T-4	**Not applicable**. The Project would not prevent CARB from implementing this measure.

[6] The Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "the Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009).

Table 4.5-3
Project Consistency with Scoping Plan Greenhouse Gas Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
Ship Electrification at Ports (Shore Power)	T-5	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Goods Movement Efficiency Measures 1. Port Drayage Trucks 2. Transport Refrigeration Units Cold Storage Prohibition 3. Cargo Handling Equipment, Anti-Idling, Hybrid, Electrification 4. Goods Movement Systemwide Efficiency Improvements 5. Commercial Harbor Craft Maintenance and Design Efficiency 6. Clean Ships 7. Vessel Speed Reduction	T-6	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Heavy-Duty Vehicle GHG Emission Reduction 1. Tractor-Trailer GHG Regulation 2. Heavy-Duty Greenhouse Gas Standards for New Vehicle and Engines (Phase I)	T-7	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Medium- and Heavy-Duty Vehicle Hybridization Voucher Incentive Project	T-8	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Medium and Heavy-Duty GHG Phase 2	N/A	**Not applicable**. The Project would not prevent CARB from implementing this measure.
High-Speed Rail	T-9	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Electricity and Natural Gas Sector		
Energy Efficiency Measures (Electricity)	E-1	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Energy Efficiency (Natural Gas)	CR-1	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Solar Water Heating (California Solar Initiative Thermal Program)	CR-2	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Combined Heat and Power	E-2	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Renewables Portfolio Standard (33% by 2020)	E-3	**Consistent.** The Project would replace existing aged wind turbine generators (WTGs) with new WTGs to help SCE meet its RPS goals.
Renewables Portfolio Standard (50% by 2050)	N/A	**Consistent.** The Project would replace existing aged WTGs with new WTGs to help SCE meet its RPS goals.
SB 1 Million Solar Roofs (California Solar Initiative, New Solar Home Partnership, Public Utility Programs) and Earlier Solar Programs	E-4	**Not applicable**. The Project would not prevent CARB from implementing this measure.

Table 4.5-3
Project Consistency with Scoping Plan Greenhouse Gas Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
Water Sector		
Water Use Efficiency	W-1	**Consistent**. The Project would use water for dust suppression during construction. No water use is associated with operation of the Project.
Water Recycling	W-2	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Water System Energy Efficiency	W-3	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Reuse Urban Runoff	W-4	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Renewable Energy Production	W-5	**Not applicable**. This measure applies to renewable energy within the water sector. The Project would not prevent CARB from implementing this measure.
Green Buildings		
1. State Green Building Initiative: Leading the Way with State Buildings (Greening New and Existing State Buildings)	GB-1	**Not applicable**. The Project would not prevent CARB from implementing this measure.
2. Green Building Standards Code (Greening New Public Schools, Residential and Commercial Buildings)	GB-1	**Not applicable**. The Project would not prevent CARB from implementing this measure.
3. Beyond Code: Voluntary Programs at the Local Level (Greening New Public Schools, Residential and Commercial Buildings)	GB-1	**Not applicable**. The Project would not prevent CARB from implementing this measure.
4. Greening Existing Buildings (Greening Existing Homes and Commercial Buildings)	GB-1	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Industry Sector		
Energy Efficiency and Co-Benefits Audits for Large Industrial Sources	I-1	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Oil and Gas Extraction GHG Emission Reduction	I-2	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Reduce GHG Emissions by 20% in Oil Refinery Sector	N/A	**Not applicable**. The Project would not prevent CARB from implementing this measure.
GHG Emissions Reduction from Natural Gas Transmission and Distribution	I-3	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Refinery Flare Recovery Process Improvements	I-4	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Work with the local air districts to evaluate amendments to their existing leak detection and repair rules for industrial facilities to include methane leaks	I-5	**Not applicable**. The Project would not prevent CARB from implementing this measure.

Table 4.5-3
Project Consistency with Scoping Plan Greenhouse Gas Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
Recycling and Waste Management Sector		
Landfill Methane Control Measure	RW-1	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Increasing the Efficiency of Landfill Methane Capture	RW-2	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Mandatory Commercial Recycling	RW-3	**Consistent**. The Project would recycle its recyclable solid waste in accordance with state and local regulations.
Increase Production and Markets for Compost and Other Organics	RW-3	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Anaerobic/Aerobic Digestion	RW-3	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Extended Producer Responsibility	RW-3	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Environmentally Preferable Purchasing	RW-3	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Forests Sector		
Sustainable Forest Target	F-1	**Not applicable**. The Project would not prevent CARB from implementing this measure.
High GWP Gases Sector		
Motor Vehicle Air Conditioning Systems: Reduction of Refrigerant Emissions from Non-Professional Servicing	H-1	**Not applicable**. The Project would not prevent CARB from implementing this measure.
SF_6 Limits in Non-Utility and Non-Semiconductor Applications	H-2	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Reduction of Perfluorocarbons (PFCs) in Semiconductor Manufacturing	H-3	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Limit High GWP Use in Consumer Products	H-4	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Air Conditioning Refrigerant Leak Test During Vehicle Smog Check	H-5	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Stationary Equipment Refrigerant Management Program – Refrigerant Tracking/Reporting/Repair Program	H-6	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Stationary Equipment Refrigerant Management Program – Specifications for Commercial and Industrial Refrigeration	H-6	**Not applicable**. The Project would not prevent CARB from implementing this measure.
SF_6 Leak Reduction Gas Insulated Switchgear	H-6	**Not applicable**. The Project would not prevent CARB from implementing this measure.
40% reduction in methane and hydrofluorocarbon (HFC) emissions	N/A	**Not applicable**. The Project would not prevent CARB from implementing this measure.
50% reduction in black carbon emissions	N/A	**Not applicable**. The Project would not prevent CARB from implementing this measure.

Table 4.5-3
Project Consistency with Scoping Plan Greenhouse Gas Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
Agriculture Sector		
Methane Capture at Large Dairies	A-1	**Not applicable**. The Project would not prevent CARB from implementing this measure.

Sources: CARB 2008 and CARB 2017.
Notes: CARB = California Air Resources Board; GHG = greenhouse gas; GWP = global warming potential; SB = Senate Bill; SF_6 = sulfur hexafluoride

Based on the analysis in Table 4.5-3, the Project would either be consistent with the applicable strategies and measures in the Scoping Plan or would not impede the implementation of Scoping Plan strategies.

The Project would not impede and may help the attainment of the GHG reduction goals for 2030 or 2050 identified in EO S-3-05 and SB 32. As discussed in the Air Quality and Greenhouse Gas (GHG) Emissions Analysis Technical Report (Appendix D), EO S-3-05 establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80% below 1990 levels by 2050. SB 32 establishes a statewide GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions, shall ensure that statewide GHG emissions are reduced to at least 40% below 1990 levels by December 31, 2030. While there are no established protocols or thresholds of significance for that future year analysis, CARB forecasts that compliance with the current Scoping Plan puts the state on a trajectory of meeting these long-term GHG goals, although the specific path to compliance is unknown (CARB 2014).

The Project would not interfere with implementation of any of the previously described GHG reduction goals for 2030 or 2050 because the Project would not exceed SCAQMD's recommended draft interim threshold of 3,000 MT CO_2e per year (SCAQMD 2008). This threshold was established based on the goal of AB 32 to reduce statewide GHG emissions to 1990 levels by 2020. Because the Project would not exceed the threshold, this analysis provides support for the conclusion that the Project would not impede the state's trajectory toward the previously described statewide GHG reduction goals for 2030 or 2050.

In addition, as discussed previously, the Project is consistent with the GHG emission reduction measures in the Scoping Plan and would not conflict with the state's trajectory toward future GHG reductions. The Project's consistency would assist in meeting the City's contribution to GHG emission reduction targets in California. With respect to future GHG targets under SB 32 and EO S-3-05, CARB has also made clear its legal interpretation is that it has the requisite authority to adopt whatever regulations are necessary, beyond the AB 32 horizon year of 2020,

to meet SB 32's 40% reduction target by 2030 and EO S-3-05's 80% reduction target by 2050. The Project would increase renewable energy production compared to the existing wind turbines and thus would support the goals within SB 32 and EO S-3-05, as well as SB 100 and EO B-55-18. The Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and no mitigation is required. This impact would be less than significant.

Summary

The Project will result in long-term beneficial impacts associated with the use of renewable energy versus fossil fuel energy to generate electricity, as described above. The Project's implementation will reduce SCE's reliance on fossil fuel energy sources, and will support both state and local plans designed to reduce GHG emissions in compliance with state law. Therefore, the Project's generation of GHG emissions would not be significant, and no new mitigation measures are required.

4.5.5 Cumulative Impacts

Since climate change is a global phenomena, the geographic scope of the cumulative greenhouse gas analysis would also be on a global scale.

Global climate change is a cumulative impact, and GHG emissions-related impacts are recognized as cumulative impacts (CAPCOA 2008). As such, the Project (like all other development and municipal projects) would participate in potential GHG emissions-related impacts through its incremental contribution combined with the cumulative increase of all other sources of GHGs.

The estimated total GHG emissions during construction would be approximately 590 MT CO_2e over the construction period. Estimated Project-generated construction emissions amortized over 30 years would be approximately 20 MT CO_2e per year. As with Project-generated construction criteria air pollutant emissions, GHG emissions generated during Project decommissioning and construction 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.

The Project would not generate an increase in GHG emissions during operations, as there would be no increased operational activity due to the Project. The SCAQMD significance threshold for the Project is 3,000 MT CO_2e per year. The Project would not exceed this threshold. The Project also would be consistent with the City's Climate Action Plan, State Scoping Plan, and state goals to increase zero carbon emission energy sources. Also, the net reduction in GHG emissions would be 18,186 MT CO_2e per year, resulting in a total of 545,580 MT CO_2e over the 30-year Project lifetime. Therefore, given that the Project-level impacts are less than significant, the Project would also result in less-than-significant impacts on a cumulative basis, and impacts associated with GHG emissions would not be cumulatively considerable.

4.5.6 Mitigation Measures

The Project would have a less-than-significant impact with regard to GHG emissions. No new mitigation measures are required.

4.5.7 Significance After Mitigation

The Project would have a less-than-significant impact with regard to GHG emissions.

4.5.8 References

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4.6 NOISE

This section describes the existing noise setting within the Project area, identifies applicable regulatory requirements, evaluates potential impacts compared to the impacts of the WECS 20 Permit Project Final Environmental Impact Report (WECS 20 FEIR), and identifies mitigation measures related to implementation of the Desert Hot Springs Wind Energy Repowering Project (Project).

In addition to the documents incorporated by reference (see Section 2.8 of Chapter 2, Introduction, of this Draft Supplemental Environmental Impact Report [Draft SEIR]), the following analysis is based on the following source, which is provided as Appendix H of this Draft SEIR:

- May 2019 Noise Impact Study for the Desert Hot Springs Wind Energy Repowering Project prepared by Dudek

4.6.1 Existing Conditions

Existing Ambient Noise Levels

Dudek visited the Project site on August 3, 2017, and August 4, 2017, to measure ambient sound levels in the Project vicinity. Figure 4.6-1 shows the measurement locations in relation to the Project boundaries.

Short-term (ST no.) measurements were conducted with a calibrated Rion NL-62 sound level meter placed on a tripod with the microphone positioned approximately 5 feet above the ground. The meter was set with the slow time constant. Each short-term measurement was 10 minutes long. The measurements were conducted during typical weekday, midday conditions; during the noise measurements, some of the existing turbines on site and in the surrounding area were operational. The locations of the short-term measurements were selected in order to obtain a varied yet accurate understanding of the existing ambient noise environment in the surrounding Project area.

Table 4.6-1 presents the results of the short-term noise measurements: L_{eq} (equivalent continuous sound level) and the statistical sound levels[1] (L_{50}, L_{80}, L_{90}, and L_{90}).

Table 4.6-1
Existing Short-Term Sound Level Measurements

Measurement	Primary Observed Noise Source	Time	L_{eq}	L_{50}	L_{80}	L_{90}	L_{99}
			(dBA)				
ST1	Traffic	1:25 p.m. to 1:35 p.m.	50.7	39.2	37.6	37.1	36.5
ST2	Wind Turbines	1:05p.m. to 1:15 p.m.	46	43.4	42	41.3	39

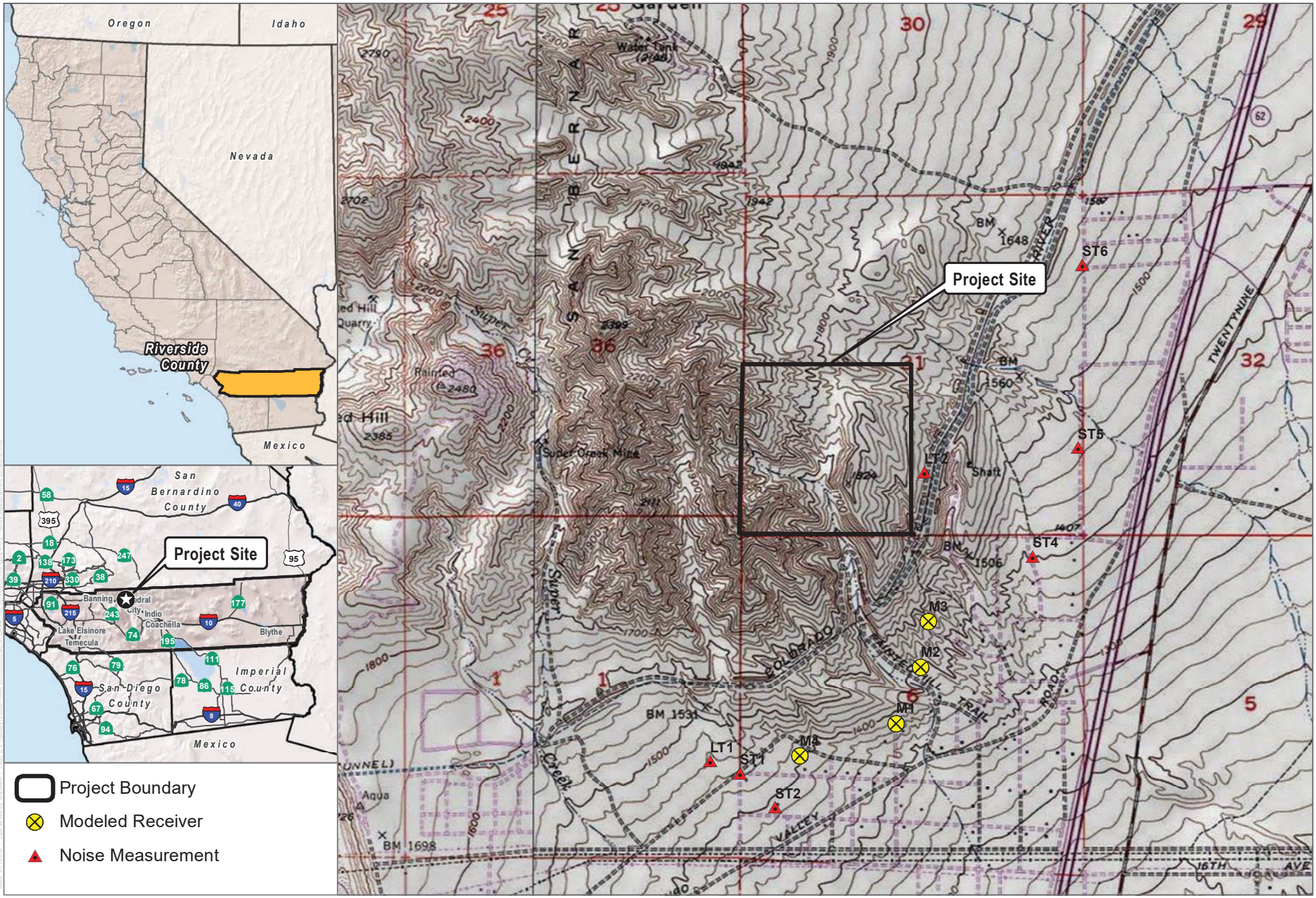
[1] Statistical sound levels are sound level metrics used to describe the level exceeded for the percent of the time. For example, the L_{90} would be the sound level exceeded for 90% of the measurement time.

Table 4.6-1
Existing Short-Term Sound Level Measurements

Measurement	Primary Observed Noise Source	Time	L_{eq}	L_{50}	L_{80}	L_{90}	L_{99}
			(dBA)				
ST3	Traffic	1:50 p.m. to 2:00 p.m.	56.1	43	38.3	37.1	35.6
ST4	Traffic	12:44 p.m. to 12:54 p.m.	48.6	43.7	42.2	41.6	40.6
ST5	Traffic	12:27 p.m. to 12:37 p.m.	49.4	48.2	45.1	43.5	38.8
ST6	Traffic	12:09 p.m. to 12:19 p.m.	42.9	41.3	39.2	38.6	37.5

Notes: L_{eq} = equivalent continuous sound level (time-average sound level); dBA = A-weighted decibels.
Conditions: Temperature: 95°F –101°F, partly cloudy and overcast, low to mph light/gusty east wind.

The long-term measurements were completed using two SoftDB Model Piccolo sound level meters. The Piccolo sound level meters meet the ANSI standard for a Type 2 general-purpose sound level meter. The meters collected hourly measurements from midmorning on August 3, 2017, until midday on August 4, 2017. Those hourly equivalent levels (L_{eq}) were averaged together to produce the results presented in Table 4.6-2. Averages for the daytime and nighttime are presented as a reference of existing noise levels in the vicinity.



SOURCE: USGS 7.5 minute Desert Hot Springs Quadrangle

DUDEK

0 1,000 2,000 Feet

FIGURE 4.6-1

Noise Measurement Locations

Desert Hot Springs Wind Energy Repowering Project

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Table 4.6-2
Existing Long-Term Sound Level Measurements

Site	Location Description	(dBA)			
		Daytime Average Noise Levels 7:00 a.m.–10:00 p.m. L_{eq}	*Nighttime Average Noise Levels 10:00 p.m.–7:00a.m.* L_{eq}	L_{dn}	*CNEL*
LT1	East of existing turbine arrays in the vicinity	54	62	69	70
LT2	On ridge east of existing hillside turbines	47	52	59	59

Notes: dBA = A=weighted decibels; L_{eq} = equivalent continuous sound level (time-average sound level); L_{dn} = day/night average sound level; CNEL = community noise equivalent level.

Both long-term monitors measured higher noise levels during the nighttime hours than during the daytime. These high noise levels correlate with wind data that was provided by the Project Applicant during the same time period. Between about 8:30 p.m. on August 3, 2017, and 4:30 a.m. on August 4, 2017, sustained wind speeds above 10 mph were reported. Typical daytime wind speeds were lower than 10 mph during the measurements. The higher wind speeds observed at night are likely the cause of the higher measured noise levels relative to daytime.

Existing Conditions Analysis

In addition to the short-term and long-term noise reading, modeling of the existing noise levels was also conducted. Modeling was done in an attempt to segregate the existing noise from the existing on-site wind turbines, which is difficult to do with noise readings alone, given that ambient noise readings inevitably pick up background noise from other off-site land use and activities.

The Computer-Aided Noise Abatement (CadnaA) model was used to model the noise from existing wind turbines from the Project site and surrounding area. CadnaA is a computer-modeling program for calculation, presentation, assessment, and prediction of environmental noise. Table 4.6-3 presents the calculated existing noise levels at measurement and modeling receiver locations. As shown, modeled noise levels from the existing turbines range from approximately 36 A-weight decibels (dBA) equivalent noise level (L_{eq}) at receiver ST3 to approximately 55 dBA L_{eq} at receiver ST1. Figure 4.6-2 shows the noise contours (i.e., lines of equal sound level) from the existing on-site turbines.

Table 4.6-3
Existing Modeled Noise Level Result

Receiver ID	Location Description	Hourly dBA L_{eq}
ST1	Super Creek and Windhaven Road	55
ST2	Sunrise Drive	51
ST3	Bonnie Bell	36
ST4	Fairview Road and Matilija Road	44
ST5	Oceander Street	44
ST6	Esparta Avenue and Sierra Boulevard	41
M1	Country View Road	44
M2	Estrelita Drive	42
M3	Tan Alto Drive	40
M4	Westside Drive	50

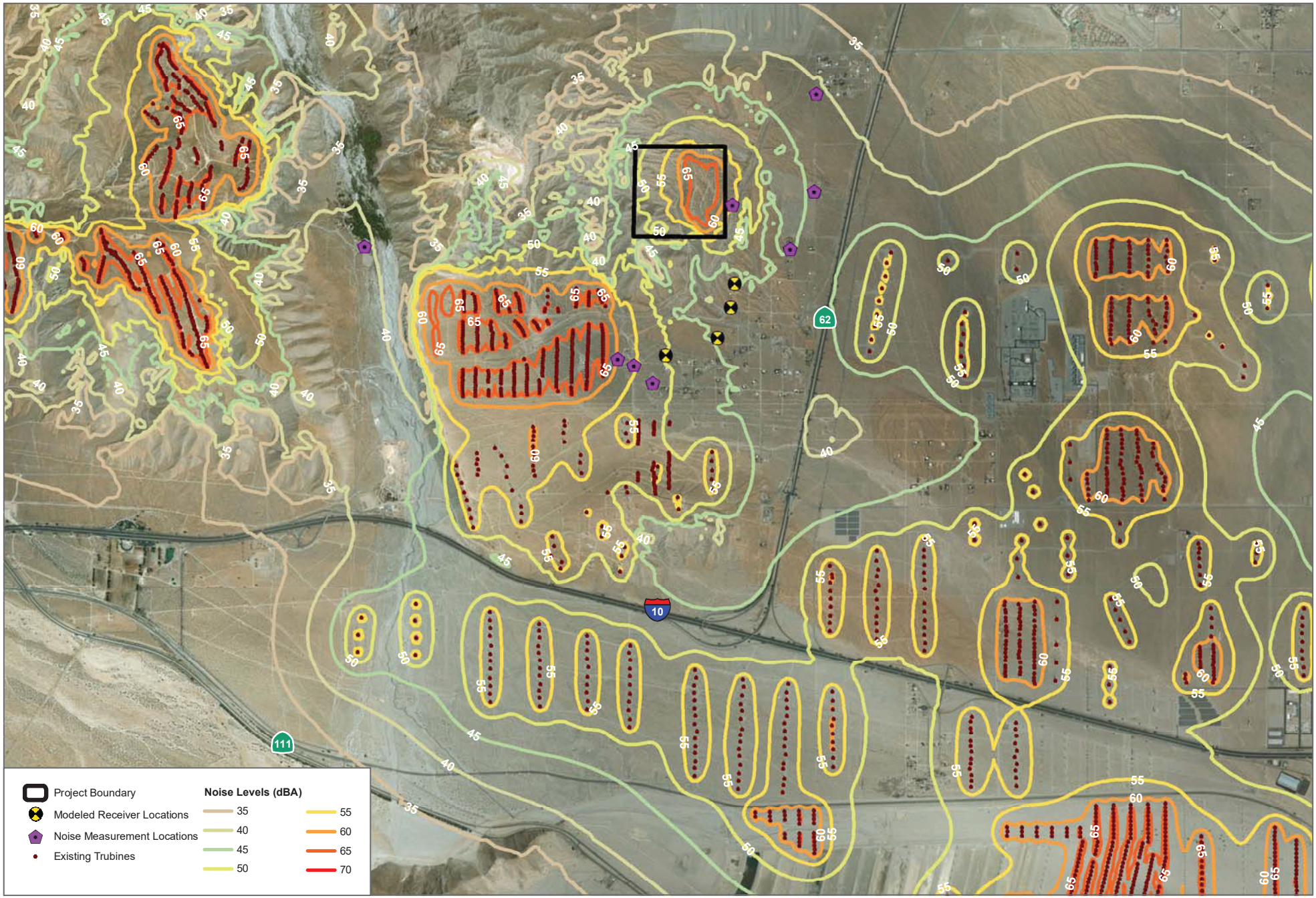
Note: dBA L_{eq}= equivalent noise level A-weighted decibels.

Existing Noise Sensitive Receptors

Land uses that are typically considered to be noise-sensitive receptors include uses where people congregate for large periods of time and/or uses that support activities that are particular sensitive to increase in ambient noise levels. Such land uses include residential use, hospitals, schools, churches, and senior living. In the Project area, the single-family residences located in the unincorporated Painted Hills area of Riverside County represent the nearest noise-sensitive receptors to the Project site.

The closest wind turbine construction and decommissioning activities would occur at a distance of approximately 1,900 feet away from the nearest residences. The average distance between construction and decommissioning activities, which would occur throughout the Project site, would be approximately 3,000 feet away from these residences. Because construction work will likely be required along certain segments of the Project's existing access road, this analysis also accounts for the distances between the nearby single-family residences and the access road. The nearest access road construction activities would occur at a distance of approximately 250 feet away from the closest residences. The average distance between construction activities, which would occur throughout the Project site, would be approximately 2,000 feet away from these residences.

Given that the closest noise-sensitive receptors are located in the County's jurisdiction, Project construction and operational noise impacts are compared against the County's noise standards, in addition to the City's noise ordinances.



SOURCE: DigitalGlobe 2017

DUDEK

0 0.5 1 Miles

FIGURE 4.6-2

Existing Wind Turbine Noise Contours

Desert Hot Springs Wind Energy Repowering Project

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4.6.2 Relevant Plans, Policies, and Procedures

State

State of California Noise Requirements

California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element that is to be prepared per guidelines adopted by the Governor's Office of Planning and Research (OPR 2017). The purpose of the Noise Element is to limit the exposure of the community to excessive noise levels.

Local

City of Desert Hot Springs

City of Desert Hot Springs General Plan

The City's General Plan was developed to guide the future land use and development patterns within the City's planning area, which includes lands contained in the City boundary and unincorporated lands adjacent to the City's borders identified as areas likely to be serviced or annexed by the City in the future. As discussed in the General Plan, policies pertaining to noise and vibration are addressed in the Noise Element of the General Plan. Policies associated with noise are presented as follows (City of Desert Hot Springs 2000):

Noise Element

The General Plan Noise Element aims to coordinate the community's various land uses with the existing and future noise environment, and to ensure that any negative effects of noise are minimized or avoided completely. Through the implementation of the policies and programs of this element, any current and future adverse noise impacts can be greatly reduced or avoided entirely, and the general health, safety and welfare of the community can be protected from significant noise impacts. The following policies (City of Desert Hot Springs 2000) related to noise are applicable to the Project.

Policy 6: The City shall assure that noise impacts from existing and future windfarm development shall be kept at a level compatible with residential and other sensitive land uses.

Program 6A: The City shall require that applications for windfarm development (WECS: Wind Energy Conservation Systems) include technical data on noise generation and

projected noise contours. Following installation, noise monitoring shall be performed in conformance with requirements of the City, with adverse impacts to be fully mitigated.

In California and the City specifically, a community noise equivalent level (CNEL) of 65 dBA is used as a standard for maximum outdoor noise levels in residential areas.

City of Desert Hot Springs Municipal Code

Section 17.16.140 and Section 17.40.180 of the City of Desert Hot Springs Municipal Code (City of Desert Hot Springs 2018) provide standards and development criteria that apply to WECS developments. The following standards and development criteria would apply to the project pertaining to noise:

1. No WECS shall be located closer than 1,200 feet from any residence, hotel, hospital, school, library or convalescent home unless the owner of such structure waives, in writing, the setback requirement.
2. Notwithstanding the 1,200-foot setback requirement specified above, a lesser setback may be permitted where due to factors of topography or the characteristics of the proposed WECS project, the approving entity finds that the noise, aesthetic or other environmental impacts of the project on adjacent properties will not be any more significant than if the 1,200-foot setback were applied.
3. A commercial WECS or WECS array shall not be operated inconsistent with the provision of Section 17.40.180, in which the following provisions shall apply:
    a. In residential areas, no exterior noise level shall exceed 65 dBA and no interior noise level shall exceed 45 dBA.
    b. All residential developments shall incorporate the following standards to mitigate noise levels:
        i. Increase the distance between the noise source and receiver.
        ii. Locate land uses not sensitive to noise (i.e., parking lots, garages, maintenance facilities, utility areas, etc.) between the noise source and the receiver.
        iii. Bedrooms should be located on the side of the structure away from major rights-of-way.
        iv. Quiet outdoor spaces may be provided next to a noisy right-of-way by creating a U-shaped development which faces away from the right-of-way.
    c. The minimum acceptable surface weight for a noise barrier is 4 pounds per square foot (equivalent to .75-inch plywood). The barrier shall be of a continuous material which

is resistant to sound including: (1) masonry block; (2) precast concrete; or (3) earth berm or a combination of earth berm with block concrete.

d. Noise barriers shall interrupt the line of sight between noise source and receiver. (Prior code section 159.20.030(15)).

The City regulates noise from construction in its Municipal Code (Section 9.04.030) by regulating the allowable hours of construction activity. Construction is not permitted between the hours of 5:00 p.m. and 7:00 a.m. Monday through Saturday (or between the hours of 6:00 p.m. and 6:00 a.m. during daylight savings time). Furthermore, construction is not permitted on Sundays (City of Desert Hot Springs 2018).

County of Riverside

Although the Project site is located entirely within the boundaries of the City of Desert Hot Springs, the nearest noise-sensitive receivers are located in an unincorporated area of Riverside County. As such, this analysis also takes into account the Project's consistency with County-established noise regulations, in addition to the City's noise requirements.

County of Riverside General Plan

Noise Element

Though there is minimal residential development in the immediate area where these wind turbines are located, the potential for noise and groundborne vibration in neighboring developed areas may occur. The Wind Implementation Monitoring Program, designed and implemented by the County, guides the policy direction for this area. In terms of defining significance of impacts, the County's noise standards would apply if noise from turbines on City land would have spillover effect on receptors on County land.

Wind Implementation Monitoring Program Policies

1. Enforce the Wind Implementation Monitoring Program (WIMP).
2. Encourage the replacement of outdated technology with more efficient technology with less noise impacts. (AI 105).

WECS are also defined as stationary noise producers under the General Plan Noise Element. The following noise policies identify mechanisms to measure and mitigate the noise emitted from stationary noise sources (County of Riverside 2015).

Noise Element Policies

Policy N 4.1: Prohibit facility-related noise received by any sensitive use from exceeding the following worst-case noise levels: (AI 105)

a. 45 dBA [A-weighted decibels]-10-minute L_{eq} [equivalent sound level] between 10:00 p.m. and 7:00 a.m.

b. 65 dBA-10-minute L_{eq} between 7:00 a.m. and 10:00 p.m.

Policy N 4.2: Develop measures to control non-transportation noise impacts. (AI 105)

Policy N 4.3: Ensure any use determined to be a potential generator of significant stationary noise impacts be properly analyzed and ensure that the recommended mitigation measures are implemented. (AI 105, 106, 109)

County of Riverside Ordinances

Maximum noise level limits are contained in the County's Ordinances (Ordinance No. 847). Specifically, no person shall create any sound, or allow the creation of any sound, on any property that causes the exterior sound level on any other occupied property to exceed the County's sound level standards. For all residential development, except for General Plan land use designations Rural Residential (5 acres), Rural Mountainous (10 acres), and Rural Desert (10 acres), the noise standards are that the maximum noise level shall not exceed 55 dBA between the hours of 7:00 a.m. to 10:00 p.m. and 45 dBA between the hours of 10:00 p.m. and 7:00 a.m. For Rural Residential (5 acres), Rural Mountainous (10 acres), and Rural Desert (10 acres), the maximum sound level limit is 45 dBA 24 hours a day (Ordinance No. 847).

Exemptions to these noise standards include WECS, provided such systems comply with the following WECS noise provisions (Riverside County Ordinance No. 348.4835):

1. A commercial WECS permit shall be granted and requires no acoustical studies if the applicant demonstrates that the proposed WECS or WECS array complies with the following standards.

   a. WECS arrays with 10 or fewer WECS (comprised of WECS designed "in accordance with proven good engineering practices") are setback 2,000 feet or more from the nearest receptor.

   b. WECS designed with the following characteristics shall be deemed "in accordance with proven good engineering practices."

      - having at least 3 blades;
      - upwind rotor;

- no furling;
- tapered and twisted blades; and
- airfoils designed to stall softly.

2. If the above standards are not met then a commercial WECS permit shall be granted provided the following:

   c. The projected WECS noise level at each receptor is at or below 55 dBA weighted.

      i. This threshold shall be reduced by 5 dBA where it is projected that pure tone noise will be generated.

      ii. A pure tone exists if the one-third octave band sound pressure level in the bandwidth of the tone exceeds the arithmetic average of the sound pressure levels on the two contiguous one-third octave bands by five dB [decibels] for center frequencies of 500 Hz [cycles per second, or Hertz] and above, and 8 dB for center frequencies between 160 and 400 Hz, and by 15 dB for center frequencies less than or equal to 125 Hz.

3. Where acoustical studies are required, and the WECS are not designed in "accordance with proven good engineering practices" as defined above, the low frequency noise shall not exceed the following at a receptor:

   a. 75 dB, C weighted (5 to 100 hertz) or Predicted C (PC) for non-implusive WECS.

   b. 67 dB, C weighted (5 to 100 hertz) or PC for impulsive WECS.

The County regulates noise from construction in its County Ordinances (Section 15.04.020; County of Riverside 2018) by regulating the allowable hours of construction activity within one-quarter mile of an occupied residence or residences. Construction is not permitted between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September and between the hours of 6:00 p.m. and 7:00 a.m. during the months of October through May. Exceptions to these standards may be allowed only with the written consent of the building official.

4.6.3 Thresholds of Significance

Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.) provides guidance for evaluating whether a development project may result in significant impacts. Based on Appendix G of the CEQA Guidelines, the Project would have a significant impact on air quality if the Project would:

1. Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. *(The WECS 20 FEIR previously found this impact to be a less-than-significant impact with mitigation incorporated.)*

2. Expose persons to or generate excessive groundborne vibration or groundborne noise levels. *(The WECS 20 FEIR previously found this impact to be less than significant.)*
3. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. *(The WECS 20 FEIR previously found this impact to be a less-than-significant impact with mitigation incorporated.)*
4. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. *(The WECS 20 FEIR previously found this impact to be a less-than-significant impact with mitigation incorporated.)*
5. Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and expose people residing or working in the project area to excessive noise levels. *(The WECS 20 FEIR previously found this impact to be less than significant.)*
6. Be within the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels. *(The WECS 20 FEIR previously found the project to have no impact.)*

Approach and Methodology

A site visit was conducted to measure existing ambient noise levels in the Project vicinity. Location data was provided for all existing on-site wind turbines. Wind turbine sound level modeling was conducted for the existing turbines on the Project site to establish baseline noise levels produced by the existing wind turbines.

In addition to the short-term and long-term noise reading, modeling of the existing noise levels was also conducted. Modeling was done in an attempt to segregate the existing noise from the existing on-site wind turbines, which is difficult to do with noise readings alone, given that ambient noise readings inevitably pick up background noise from other off-site land use and activities.

The CadnaA model was used for the wind turbine noise analysis. Wind turbine data for both the existing on-site wind turbines and the new wind turbines were input into the computer model, along with topographical data and site plan information. The outdoor noise propagation formulas follow the ISO 9613 (attenuation of sound during propagation outdoors) standard. Based upon recent research for wind turbine modeling protocol (RSG 2016), a ground factor of 0.5 (G=0.5) and an addition of 2 dB was used. The modeling sound power levels for the new wind turbines are based on moderate to high wind speeds (10 mph to 20 mph) during operation, which represents the highest turbine noise levels and a conservative analysis. For the existing wind turbines, an assumed wind speed of approximately 18 mph was used; this is consistent with the assumptions used for the noise analysis conducted for the previously proposed project (Hersh 1998). These parameters were set in the CadnaA model.

For the purposes of presenting accurate Project-related noise impacts, the off-site turbines surrounding the Project site were included in the analysis. The noise analysis focused on removing the existing on-site wind turbines and adding the new turbines within the Project boundaries. For the baseline or "Existing" scenario, the CadnaA model was used to model the existing wind turbine noise from the Project site and surrounding area turbines as point sources based on data provided by the Project Applicant. When data on the hub height was not available, the height of existing wind turbines was assumed to be 80 feet (25 meters). All existing wind turbines were assumed to have a sound power (Lw) of 100 dBA based on previous wind turbine analyses for the vicinity wind projects (Hersh 1998). This corresponds to an average of the sound power levels (97 dB to 102.5 dB) for the existing wind turbines assessed previously.

For the "Proposed" scenario, the existing on-site wind turbines were deleted from the model and replaced with the four new wind turbines. All new wind turbines were conservatively assumed to have a 309-foot (94 meters) hub height. In addition, they were conservatively modeled with a sound power level of 110 dBA based on the Vestas 117 Model Turbine rated 3.45 MW, which is the turbine with the maximum sound power level among a number of potential wind turbines under consideration for the Project. This sound power level corresponds to expected wind speeds from 10 mph to 20 mph.

Temporary noise and vibration impacts from decommissioning of the existing turbines and construction of the proposed turbines were assessed using the Federal Highway Administration's (FHWA's) Roadway Construction Noise Model (RCNM) (FHWA 2008). Although the model was funded and promulgated by the FHWA, the RCNM is often used for non-roadway projects, because the same types of construction equipment used for roadway projects are also used for other project types. Input variables for the RCNM consist of the receiver/land use types, the equipment type and number of each (e.g., two graders, a loader, a tractor), the duty cycle for each piece of equipment (e.g., percentage of hours the equipment typically works per day), and the distance from the noise-sensitive receiver. No topographical or structural shielding was assumed in the modeling. The RCNM has default duty-cycle values for the various pieces of equipment, which were derived from an extensive study of typical construction activity patterns. Those default duty-cycle values were used for this noise analysis.

4.6.4 Impacts Analysis

a) Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Short-Term Decommissioning and Construction Noise

Decommissioning and construction noise are temporary phenomena; it is estimated that these activities would last approximately 13 months. The activities associated with

decommissioning of the existing on-site wind turbines would be similar to construction of the new wind turbines in terms of the equipment used and activities conducted; thus, potential decommission noise impacts are addressed here along with possible construction noise impacts.

The closest area of disturbance associated with construction of the new wind turbines is located approximately 1,900 feet from the nearest sensitive-receptor land use (single-family residence), while the nearest area of disturbance associated with improvements to the access road will be located approximately 250 feet from the closest residence. The closest residence would also be subject to daily pass-bys of construction worker vehicles (anticipated to range from approximately 12 to 24 per day) and vendor trucks (anticipated to range from approximately 2 to 28 per day).

Construction noise levels will vary from hour to hour and day to day, depending on the equipment in use, the operations being performed, and the distance between the source and receptor. Construction equipment with substantially higher noise-generation characteristics (such as pile drivers, rock drills, blasting equipment) would most likely not be necessary, although jackhammers and/or backhoe-mounted impact hammers (hoe rams) may be necessary during existing turbine decommissioning.

Noise from construction activities varies based upon several factors, including the specific equipment types, size of equipment used, percentage of time in use, condition of each piece of equipment, and number of pieces of equipment that will actually operate on site. The construction vehicle assemblage would include standard equipment such as cranes, excavators, man lifts, graders, rollers, dozers, trackers, and miscellaneous trucks. The magnitude of a temporary noise impact would depend on the type of construction activity, equipment, duration of the construction phase, distance between the noise source and receiver, and any intervening structures.

The typical operating cycles for construction equipment involve 1 or 2 minutes of full power operation followed by 3 or 4 minutes at lower power settings. Noise from construction equipment generally exhibits point source acoustical characteristics. A point source sound is attenuated (reduced) at a rate of 6 dB per doubling of distance from the source for “hard site” conditions and at 7.5 dB per doubling of distance for “soft site” conditions. A hard site is characterized by ground surface covered by pavement, or hard compacted soils; conversely, a soft site is characterized by ground covered with vegetation, or loose soil with a rough surface (such as tilled land). These rules apply to the propagation of sound waves with no obstacles between source and receivers, such as topography (ridges or berms) or structures.

Table 4.6-4 shows the calculated noise levels at nearby noise-sensitive receptors (i.e., the closest residential properties) during decommissioning and construction phases, employing the RCNM software and based on construction equipment defaults (i.e., construction equipment types) found in the air quality model California Emissions Estimator Model (CalEEMod) for a typical project of this size and scope.

Table 4.6-4
Construction/Decommissioning Noise Modeling Summary Results

Construction Phase	L_{eq} (dBA)			
	ST4/M3 – Nearest Turbine Construction/ Decommissioning Work Distance (receiver approximately 1,900 feet away)	*ST4/M3 – Typical Turbine Construction/ Decommissioning Work Distance (receiver approximately 3,000 feet away)*	*ST1/M1 – Nearest Access Road Work Distance (receiver approximately 250 feet away)*	*ST1/M1 – Typical Access Road Work Distance (receiver approximately 2,000 feet away)*
Existing Turbine Decommissioning	53	50	n/a	n/a
Mobilization/Laydown	54	50	n/a	n/a
Site Prep/Grading	53	50	n/a	n/a
Collection Lines	54	51	n/a	n/a
Access Roads	53	50	70	50
Foundations	54	51	n/a	n/a
New Turbine Install	51	48	n/a	n/a

Notes: L_{eq} = equivalent sound level; dBA = A-weighted decibels.

As shown in Table 4.6-4, when wind turbine construction and decommissioning would take place relatively near to the nearest receiver (ST4/M3, approximately 1,900 feet away), modeled noise levels would range from approximately 51 dBA L_{eq} to 54 dBA L_{eq}. Typical wind turbine decommissioning and construction-related noise levels are anticipated to range from approximately 48 dBA L_{eq} to 51 dBA L_{eq} at the nearest residential properties, as represented by receiver ST4/M3 located to the southeast of the Project site. The highest noise levels are anticipated to occur during the relatively brief periods in which access road improvements work could take place near residences. As shown in Table 4.6-4, when access road improvements take place at the nearest residences approximately 250 feet away, construction noise is estimated to be approximately 70 dBA L_{eq}; more typically, when construction would take place at greater distances from residences, the noise level from access road work would be approximately 50 dBA L_{eq}.

Noise from construction worker vehicle and vendor truck pass-bys was estimated using the FHWA's Traffic Noise Model version 2.5 (FHWA 2004). Conservatively assuming the maximum numbers of worker vehicles (24 per day) and heavy trucks (28 per day) occur

simultaneously within the same hour,[2] and assuming a travel speed of 15 miles per hour, the estimated noise level would be approximately 50 dBA L_{eq} at the nearest residence, approximately 250 feet from the access road. Assuming a more typical vehicle mix of 24 employee trips and 2 heavy trucks occurring during the same hour (as may realistically occur during the start and end of a construction day), the corresponding noise level would be approximately 39 dBA L_{eq} at the nearest residence.

While construction activities would temporarily increase daytime noise levels at noise-sensitive receptors, the expected increases will only be temporary and intermittent. As provided in the Noise Impact Study (Appendix H), the measured noise level at ST4 was approximately 49 dBA L_{eq} and the measured noise level at ST1 was approximately 51 dBA L_{eq}. Periodically throughout the construction workday, the temporary noise from turbine construction would be slightly above this ambient noise level. For a relatively brief period, the noise level from access road construction would be higher than the ambient noise levels at the nearest residences. More typically, the temporary noise from access road improvements would be slightly below this ambient noise level. Similarly, worst-case traffic noise levels on the access road would be slightly below this ambient noise level, at 50 dBA L_{eq}. More typically, access road traffic noise would be well below this level at 39 dBA L_{eq}, and would be negligible.

The City and County regulate noise from construction (in Municipal Code Section 9.04.030 and in County Code of Ordinances Section 15.04.020, respectively) by regulating the allowable hours of construction activity. The hours of Project construction would not extend beyond the hours permitted by the City and County. Overall, Project construction and decommissioning would take place only during permitted hours, would be temporary and intermittent in nature, and would result in relatively low levels of noise. In addition, the Project would be required to adhere to mitigation measures MM-NOI-81 and MM-NOI-82, implementation of which would further minimize construction noise impacts. As such, noise levels from construction and decommissioning would not result in adverse effects to noise-sensitive users in the surrounding Project area.

Long-Term Operational Noise

Table 4.6-5 shows the results from the wind turbine noise modeling during operations. Existing wind turbine modeled noise levels are compared with the new wind turbine modeled noise levels, as well as with the City WECS noise standard. The noise level

[2] This is a highly conservative estimate, because based upon Table 4.2-6 (in Section 4.2, Air Quality, of this document), the maximum number of construction worker trips would not occur during the same construction phase as the maximum number of vendor trucks; additionally, it is highly unlikely that all 28 of the vendor trucks would arrive and/or depart during the same hour. It is more likely that the vendor trucks would be arriving and departing at intervals throughout the work day.

change due to the replacement of the existing wind turbines with the new turbines is shown in the final column of Table 4.6-5. Figure 4.6-2 shows the noise contours (i.e., lines of equal sound level) from the existing on-site wind turbines, while Figure 4.6-3 shows the noise contours (i.e., lines of equal sound level) from the new on-site wind turbines.

Table 4.6-5
Wind Turbine Noise Modeling Results—Existing versus Proposed Turbines

Receiver ID	Receiver Location/Description	Hourly L_{eq} (dBA)		City of Desert Hot Springs WECS Noise Standard (65 dBA) Exceeded?	County of Riverside WECS Noise Standard (55 dBA) Exceeded?	Change in Noise Level (dB)
		Existing Turbines	*Proposed Turbines*			
ST1	Super Creek and Windhaven Road	55	55	No	No	0
ST2	Sunrise Drive	51	51	No	No	0
ST3	Bonnie Bell	36	36	No	No	0
ST4	Fairview Road and Matilija Road	44	44	No	No	0
ST5	Oceander Street	44	44	No	No	0
ST6	Esparta Avenue and Sierra Boulevard	41	41	No	No	0
M1	Country View Road	44	44	No	No	0
M2	Estrelita Drive	42	42	No	No	0
M3	Tan Alto Drive	40	40	No	No	0
M4	Westside Drive	50	50	No	No	0

Notes: L_{eq} = equivalent sound level; dBA = A-weighted decibels; dB = decibels.

As shown in Table 4.6-5, predicted noise levels produced by the new wind turbines would range from approximately 36 dBA L_{eq} at receiver ST3 to approximately 55 dBA L_{eq} at receiver ST1. Neither the City noise standard of 65 dBA nor the County noise threshold of 55 dBA would be exceeded at any of the modeled receiver locations. Additionally, when rounded to whole numbers, the change in noise level at the receiver locations as a result of the Project would be zero (0) dB.[3] Project operations would not exceed applicable noise standards.

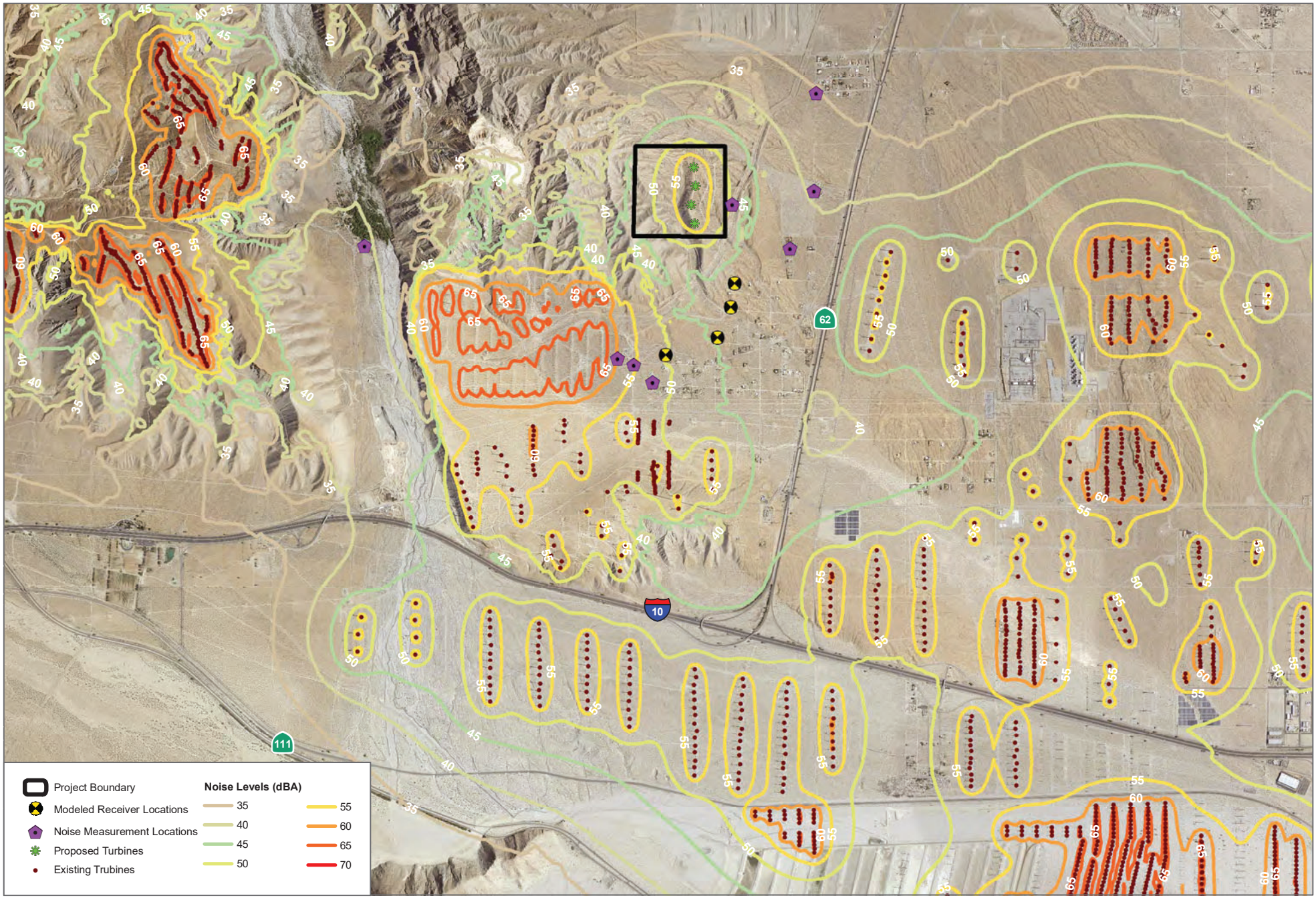
Routine Project maintenance will include the periodic clearing of sand (as currently occurs) from within the switchyard fences and Project access roads due to high quantities of sand blowing into the area and accumulating in areas where wind velocities are slowed by fences, turbine towers, and utility poles.

[3] The net change of zero (0) dB is due to a combination of the existing turbines in the surrounding area which would remain in the future and which mask the noise from the new turbines, as well as the replacement of the old turbines on site with a fewer number of new turbines.

To operate the existing wind energy facilities, the Project Applicant employs approximately 10 people. Once repowered, a similarly sized operations team would continue to work on the Project and on the Project site. No net increase in the number of people employed and working on the Project site would occur. In addition, although impacts related to operational noise will already be less than significant, to ensure that these already insignificant impacts are further minimized to the extent feasible, the Project would be required to adhere to mitigation measures MM-NOI-83 and MM-NOI-84. Therefore, noise impacts related to routine project maintenance would be less than significant.

Future Decommissioning Noise

The Project lifespan would be at least 30 years. When the proposed facility is decommissioned, the four wind turbines would be removed from the Project site and the materials would be reused or sold for scrap. Decommissioning activities are anticipated to result in lower impacts than those associated with the decommissioning of the existing wind turbines, because of the significant reduction in the number of wind turbines and amount of associated materials. For this reason, impacts associated with future decommissioning of the Project's new wind turbines would be less than those impacts related to the decommissioning of the existing 69 wind turbines that are currently found on site.



SOURCE: NAIP 2016

DUDEK

0 0.5 1 Miles

FIGURE 4.6-3

Proposed Wind Turbine Noise Contours

Desert Hot Springs Wind Energy Repowering Project

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Summary

The Project would be required to adhere to all relevant mitigation measures identified in the WECS 20 FEIR. No new or more severe short-term construction or long-term operational impacts associated with noise levels in excess of standards would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR. No new mitigation measures are required.

b) Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

The Project is not anticipated to include equipment or activities capable of producing substantial long-term groundborne vibration or groundborne noise levels. The wind turbines themselves would not generate significant levels of dynamic forces (as would, for example, a hammer hitting an anvil) that would be transmitted into the ground. Additionally, vehicles used for inspection and maintenance of the Project would ride on rubber tires, and vibration levels would be negligible. The only ground vibration potential would be associated with the short-term decommissioning and construction phases of the Project.

Groundborne vibration from construction (and by extension, decommissioning) activities is typically attenuated over short distances. The heavier pieces of construction equipment used on site would include cranes, excavators, bulldozers, graders, loaded trucks, and rollers. Additionally, backhoe-mounted impact hammers (hoe rams) or jackhammers may be used during decommissioning of the existing turbines. Based on published vibration data, the anticipated construction equipment would generate a maximum root mean square vibration level of approximately 94 vibration decibels (VdB) re 1 micro-inch/second at a distance of 25 feet from the source (FTA 2006). The closest existing residences are approximately 1,900 feet from the turbine construction area. At this distance and with the anticipated construction equipment, the root mean square vibration levels would be approximately 36.9 VdB. For access road improvements work, heavy equipment such as graders would be used, which would generate a maximum root mean square vibration level of approximately 87 VdB re 1 micro-inch/second at a distance of 25 feet from the source (FTA 2006). The closest existing residences to access road work are approximately 250 feet away. At this distance, the root mean square vibration levels would be approximately 57 VdB. These levels would be far less than the recommended threshold of 80 VdB for human response within residential structures (FTA 2006). Vibration from construction equipment would be imperceptible and less than significant at noise-sensitive land uses.

With regards to potential for structural damage, the vibration levels are presented in terms of inches per second peak particle velocity (PPV). Based on published vibration data (FTA 2006), the anticipated construction equipment would generate vibration levels of approximately 0.210

inches per second PPV at a distance of 25 feet from the source (FTA 2006). At the nearest existing residences located approximately 1,900 feet or more from the nearest heavy construction work, the resultant PPV would be approximately 0.0003 inches per second. For access road improvements work, heavy equipment such as graders would be used, which would generate vibration levels of approximately 0.089 inches per second at a distance of 25 feet from the source (FTA 2006). At the closest existing residences to access road work, the resultant PPV would be approximately 0.0028 inches per second. These levels would be substantially less than the recommended threshold of 0.20 inches per second for potential of architectural damage to normal houses with plastered walls and ceilings.

Therefore, no new or more severe impacts associated with vibration would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR. No new mitigation measures are required.

c) Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

As previously discussed, the noise increase from Project operations would be zero (0) dB when rounded to whole numbers. The Project would not result in a substantial permanent increase in ambient noise levels. In addition, although impacts related to operational noise will already be less than significant, to ensure that these already insignificant impacts are further minimized to the extent feasible, the Project would be required to adhere to mitigation measures MM-NOI-83 and MM-NOI-84.

Therefore, no new or more severe long-term impacts associated with noise would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR. No new mitigation measures are required.

d) Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

As addressed above, temporary increases in noise levels generated during Project construction and decommissioning would range from less than the measured ambient noise level in the Project area to about 5 dB above the ambient sound level at the nearest residences. Construction noise will at times be perceptible at the nearest noise-sensitive receivers, particularly during the relatively brief periods in which access road improvement work takes place near residences. However, given that Project construction and decommissioning would take place only during permitted hours (as required by the City's and County's noise standards), and due to the temporary and intermittent nature of the noise and the relatively low levels, noise levels from construction and decommissioning would not exceed significance thresholds. In addition, the Project would be required to

adhere to mitigation measures MM-NOI-81 and MM-NOI-82, implementation of which would further minimize construction noise impacts. As such, noise levels from construction and decommissioning would not result in adverse effects to noise-sensitive users in the surrounding Project area.

Therefore, no new or more severe short-term construction impacts associated with noise would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR. No new mitigation measures are required.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two 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?

Palm Springs International Airport is located approximately 8.5 miles southeast of the Project site and is closest public airport to the Project site. Due to the distance between this airport and the Project site, no on-site employees would be exposed to airport and air traffic noise.

Therefore, no new or more severe impacts associated with public airport-related air traffic noise would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR. No new mitigation measures are required.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No private airstrips are known to be located in the vicinity of the Project site (AirNav.com 2018). As such, no on-site employees would be exposed to private airstrip and air traffic noise.

Therefore, no new or more severe impacts associated with private airstrip-related air traffic noise would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR. No new mitigation measures are required.

4.6.5 Cumulative Impacts

As further detailed herein, the CadnaA model was used for the wind turbine noise analysis. For the purposes of presenting accurate Project-related noise impacts, the off-site turbines surrounding the Project site were included in the analysis. The noise analysis focused on removing the existing on-site wind turbines and adding the new turbines within the Project boundaries. Thus, the Project-level operational impact analysis presented above already takes into account the noise generated by the related cumulative projects in the broader Project area, in conjunction with the noise generated by the Project.

In regard to construction noise, none of the future related cumulative projects listed in Section 3.3 of this Draft SEIR, specifically any of the adjacent commercial wind energy facilities, are located within 0.5 miles of the Project site. As such, even under a "worst-case" scenario where all related cumulative projects are constructed simultaneously, construction noise from the Project site is unlikely to combine with construction noise from any other work site to result in a cumulative, short-term increase in noise levels over the ambient noise conditions. Therefore, impacts associated with noise would not be cumulatively considerable.

4.6.6 Mitigation Measures

The Project would be required to comply with the following applicable noise mitigation measures adopted by the City of Desert Hot Springs as part of the WECS 20 FEIR, as revised. Where necessary, minor refinements to the WECS 20 FEIR's mitigation measures are recommended to better tailor the existing mitigation measures to the current Project; text changes are shown in underline (additional text) and strikethrough (removed text). Where text amendments are suggested, a brief reason as to why the change is being request is provided:

~~**MM-NOI-80** In order to demonstrate that the Project will remain safely below the City CNEL criterion for WECS, acoustical analyses of the Project will be performed quarterly, commencing with construction and continuing until one year after completion, and reports of said analyses will be submitted to the City Planning Department. The applicant shall bear the cost of these analyses. Should any of these analyses indicate that noise levels are above allowed thresholds, steps shall be taken immediately to bring noise levels within acceptable thresholds.~~

Reason for Text Amendment to the Mitigation Measure: As previously discussed both herein and in the May 2019 Noise Impact Study (Appendix H), the noise increase from Project operations would be zero dB when rounded to whole numbers. The Project would not result in a substantial permanent increase in ambient noise levels. Thus, no follow-up or subsequent noise monitoring is required.

MM-NOI-81 All construction activities, including the repair and maintenance of construction equipment on the Project site, shall comply with Section 9.04.030 ~~130.03~~ of the City of Desert Hot Springs Municipal Code.

Reason for Text Amendment to the Mitigation Measure: The City's Municipal Code has been updated, and its sections have been renumbered since certification of the WECS 20 FEIR; as such, the in-text reference to the Municipal Code section needs to be updated.

MM-NOI-82 Noise-generating construction equipment operated on the Project site shall be equipped with effective noise control devices (i.e., mufflers, lagging, and/or motor enclosures).

MM-NOI-83 All equipment shall be properly maintained to ensure that no unnecessary noise, due to worn or improperly maintained parts, would be generated.

MM-NOI-84 Truck deliveries and haul-offs shall only be permitted between the hours of 7:00 a.m. and 5:00 p.m. weekdays and 8:00 a.m. and 5:00 p.m. Saturdays. The haul routes shall be approved by the City Engineer.

4.6.7 Level of Significance After Mitigation

With the incorporation of all applicable mitigation measures identified in the WECS 20 FEIR, no new or more severe impacts associated with noise would occur, and the level of impact would not change from the level identified in the WECS 20 FEIR. No new mitigation measures are required.

4.6.8 References

Airnav.com. 2018. Airport information. Accessed February 23, 2018. https://www.airnav.com/airports/get.

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RSG (Resource Systems Group, Inc.). 2016. *Massachusetts Study on Wind Turbine Acoustics*. Report 2.18.2016. Prepared for the Massachusetts Clean Energy Center and Department of Environmental Protection. White River Junction, Vermont: RSG. February 18, 2016.

CHAPTER 5
OTHER CEQA CONSIDERATIONS

5.1 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL EFFECTS

As described throughout Chapter 4, Environment Analysis, of this Draft Supplemental Environmental Impact Report (SEIR), implementation of the Desert Hot Springs Wind Energy Repowering Project (Project) would not result in any impacts that cannot be mitigated to a less than significant level. Therefore, the Project would not result in significant and unavoidable environmental effects. This finding is consistent with that made in the WECS 20 Permit Project Final Environmental Impact Report (WECS 20 FEIR), which determined that the previously proposed project would not result in significant and unavoidable environmental impacts.

5.2 SIGNIFICANT IRREVERSIBLE CHANGES

The California Environmental Quality Act (CEQA) Guidelines require that an environmental impact report (EIR) address any significant irreversible environmental changes that would be caused by implementation of a project. According to CEQA Guidelines Section 15126.2(c), such a change would involve one or more of the following scenarios.

5.2.1 Change in Land Use that Commits Future Generations to Similar Uses

The Project would operate, at a minimum, for the life of its Power Purchase Agreements, which typically have 20- to 30-year terms. At the end of the useful life of the Project, two alternative scenarios are possible: (1) repower the Project site with the latest technology and continue to operate the wind energy facility, or (2) decommission and dismantle the Project and return the Project site substantially to the condition that existed prior to development. For purposes of the CEQA impact analysis, it is assumed that the Project would be decommissioned and dismantled at the end of its useful life.

Decommissioning would first involve removing the wind turbines and associated infrastructure. Much of the components that comprise the wind turbines are made of materials that can be easily recycled. Equipment such as inverters and switchgear can be reused or their components can be recycled. The wind turbine foundations and equipment pads are made from concrete that can be crushed and recycled. Conduit and wire would be removed by uncovering trenches and backfilling when completed. The electrical wiring is made from copper and/or aluminum and can be reused or recycled as well.

The Project site is currently zoned as I-E, Industrial-Scale Energy Production, and the City's General Plan Land Use Designation for the site is I-E, Industrial Energy-Related. Thus, without approval of a General Plan Amendment and a Zone Change, use and activities permitted on the Project site are limited to wind energy development and a somewhat narrow list of complimentary uses and activities. As such, although the Project would commit the Project site to uses and activities related to a commercial wind energy facility for a period of at least 30 years, the Project would eventually be decommissioned and removed from the Project site, and, assuming that a General Plan Amendment and a Zone Change are not processed, the site would subsequently be returned to a vacant state void of development. Therefore, the Project would not result in a change in land use that commits future generations to similar uses.

The above findings pertaining to changes in land use are consistent with that made in the WECS 20 FEIR, which determined that the previously proposed project would not result in significant irreversible changes to the environment or a significant irretrievable commitment of environmental resources.

5.2.2 Irreversible Damage from Environmental Accidents

Potential environmental accidents of concern include those events that would adversely affect the environment or public due to the nature or quantity of materials released and the receptors exposed to that release. Demolition and construction activities associated with the Project would involve some risk of environmental accidents. However, there is no known environmental accident related to wind turbines that would be irreversible.

Construction wastes would be recycled when feasible. Steel scrap would be collected and transported to a recycling facility. Wood waste would also be recycled where feasible, depending on size and quantity of scrap and leftover materials. Concrete waste would be used as on-site fill if needed. If there is no reuse option available for concrete waste, it would be removed to a nearby landfill. Packaging waste (such as paper and cardboard) would be separated and recycled. Any non-recyclable wastes would be collected and transported to a local landfill.

Industrial waste would be generated in the construction phase and includes paints and solvents associated with the assembly of the turbines and towers. The Project does not include the demolition of any existing building that may contain asbestos or lead-based paint. No hazardous materials (40 CFR 355) are anticipated to be produced, used, stored, or disposed of as a result of construction, operation, or decommissioning of the facilities.

However, these activities would be conducted in accordance with all applicable federal, state, and local regulations, and will follow professional industry standards for safety. Once operational, the Project would not include land uses or activities that are typically associated with environmental accidents or risk of hazardous materials release.

Overall, the above findings pertaining to irreversible environmental damage are consistent with that made in the WECS 20 FEIR, which determined that the previously proposed project would not result in significant irreversible changes to the environment or a significant irretrievable commitment of environmental resources.

5.2.3 Commitment of Nonrenewable Resources

Consumption of nonrenewable resources includes issues related to increased energy consumption, loss of agricultural lands, and lost access to mining reserves. There would be an irretrievable commitment of labor, capital, and materials used during construction and operation of the Project. Nonrenewable resources would be committed on a limited basis, primarily in the form of fossil fuels such as diesel fuel, oil, and natural gas used by equipment associated with construction and decommissioning of the Project. The consumption of other nonrenewable or slowly renewable resources would also occur, including lumber and other forest products, sand, gravel, asphalt, and metals such as steel, copper, and lead.

The purpose of the Project is to transfer power generated by the wind turbines to the regional electrical grid in support of the state's need for renewable energy to meet its Renewables Portfolio Standard (RPS) mandate. The power generated would be added to the state's electricity grid with the intent that it would replace electricity and associated environmental impacts that would otherwise be produced by fossil-fueled power plants. Thus, the Project would help to offset the use of nonrenewable fossil fuel resources.

Moreover, decommissioning of the Project would involve removing the wind turbines and associated infrastructure and recycling these materials to the greatest practical extent based on current and future recycling technology.

Thus, while construction and operation of the Project would involve the use of nonrenewable resources, the Project would help offset the use of nonrenewable resources by fossil-fueled power plants, and following the operation life of the Project, most of the Project components would be recycled or reused. Therefore, the Project would not result in a substantial commitment of nonrenewable resources.

The above findings pertaining to commitment of nonrenewable resources are consistent with that made in the WECS 20 FEIR, which determined that the previously proposed project would not result in significant irreversible changes to the environment or a significant irretrievable commitment of environmental resources.

5.3 GROWTH-INDUCING EFFECTS

CEQA Guidelines Section 15126.2(d) requires that an EIR evaluate the growth-inducing impacts of a project, as follows:

Growth-inducing impacts can occur when implementation of a development project imposes new burdens on a community by directly inducing population growth, or by leading to the construction of additional development in the project area. Also included in this category are projects that would remove physical obstacles to population growth, such as the construction of a new roadway into an undeveloped area or a wastewater treatment plant with excess capacity to serve additional new development. Construction of these types of infrastructure projects cannot be considered isolated from the immediate development that they facilitate and serve. Projects that physically remove obstacles to growth, or projects that indirectly induce growth, are those that may provide a catalyst for future unrelated development in the area (such as a new residential community that requires additional commercial uses to support residents). The growth-inducing potential of a project can also be considered significant if it fosters growth in excess of what is assumed in the local master plans and land use plans, or in projections made by regional planning agencies.

The Project would not include any permanent residential uses that would directly increase the housing supply and population. To operate the existing wind energy facilities, the Project Applicant and its affiliates employ approximately 10 people in the broader Project area. Once repowered, a similarly sized operations team would continue to work on the Project and Project site. No additional employees would be required.

The purpose of the Project is to transfer power generated by the new turbines to the regional electrical grid in support of the state's need for renewable energy to meet its RPS mandate. The power generated would be added to the state's electricity grid with the intent that it would replace electricity and associated environmental impacts that would otherwise be produced by fossil-fuel power plants. The project would supply energy to support existing demand and projected growth, which would otherwise be served from other sources, but would not foster new growth.

The Project would deliver energy into existing collection lines located within the Project site and would not require either the construction of new or extension of existing off-site power lines into an area not currently served by electricity services. In addition, because the Project site currently supports a commercial wind energy facility that is already adequately staffed with operations and maintenance personnel, no additional employees would need to be hired, as the current would staff would continue to operate and maintain the Project once the new turbines are constructed and operational. Further, access to the Project site would be provided via existing roads, and thus, neither the construction of new nor the extension of existing off-site roadway facilities is required.

This finding is consistent with that made in the WECS 20 FEIR, which determined that the previously proposed project would not result in growth-inducing impacts.

5.4 ENERGY CONSUMPTION

Beginning in late 2018, CEQA Guidelines Appendix G Environmental Checklist was updated and included a requirements that a CEQA document evaluate whether a project would result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation, or whether a project would conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

The use of electricity, natural gas, and petroleum during construction of the Project would be temporary and would have a negligible contribution to the Project's overall energy consumption. Conversely, the Project would have a positive effect on energy conservation. The Project would improve the overall efficiency of energy production on the Project site by deploying new, modern, and high-efficiency wind turbines. Because state-of-the-art turbine technology would be used, the Project would be capable of generating more electric energy more reliably and with fewer turbines, reducing the visual clutter that currently affects the site.

In addition, the City's General Plan establishes policies pertaining to the conservation and efficient use of energy in the Energy and Mineral Resources Element. As detailed in Section 2.11, Land Use and Planning, of Appendix A, Section 15163 Study, the Project would be consistent with these policies. Further, in May 2013, the City's first-ever Climate Action Plan (CAP) was released (City of Desert Hot Springs 2013). The CAP addresses the major sources of greenhouse gas (GHG) emissions, and by extension, energy resources, within the City including residential, business, building, transportation, municipal, hospitality/recreation, and education. For each GHG emissions source, the CAP suggests a number of programs or policies that can be implemented by the City to meet its goals. The CAP is the root of a comprehensive suite of sustainability services, including the City's 2013 Greenhouse Gas Inventory, its 2013 Energy Action Plan, the Voluntary Green Building Program, a municipal building Energy Benchmarking Policy, and a municipal building Retro Commissioning Policy. Together, these plans, programs, and policies support the CAP and help position the City for cost-effective, energy-efficiency savings and GHG reductions.

Table 5-1 provides an overview of the measures and goals within the CAP that are applicable to the Project and the Project's consistency with them. As shown in Table 5-1, the Project does not conflict with any of the GHG-reducing measures or goals within the CAP and, thus, is consistent with the plan. It should also be noted that the Project would not inhibit the City from implementing any of the measures not listed in Table 5-1 because they do not apply to the Project.

Table 5-1
Project Consistency with the Climate Action Plan
Greenhouse Gas Emission Reduction Strategies

Sphere	Climate Action Plan Measure	Project Consistency
Where we live – 14	**Solid Waste Diversion:** Increase solid waste diversion rate by an additional 10% to 78.1% by 2020 potentially through awareness programs, recognition, tiered rate structures, and other financial instruments.	**Consistent.** The Project would divert its solid waste in accordance with state and local regulations.
How we build – 4	**Green Building Program:** Promote the voluntary Green Building Program to prepare for enhanced Title 24 requirements and green building standards.	**Consistent.** The Project would be constructed in accordance with the building code adopted at the time of construction.
How we build – 5	**Green Building Support Services:** Advance the Voluntary Green Building Program to mandatory green building requirement with technical support services.	**Consistent.** The Project would be constructed in accordance with the building code, including green building requirements, adopted at the time of construction.
How we get around – 14	**Anti-Idling:** Pass ordinance that restricts idling of greater than 5 minutes for all commercial vehicles in specific zones. In accordance with CARB rules regarding idling of commercial Vehicles.	**Consistent.** The Project's vehicles will limit idling during construction to no longer than 5 minutes.

Source: City of Desert Hot Springs 2013.

Therefore, the Project would have a less than significant impact with regard to energy consumption and the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

5.5 REFERENCES

City of Desert Hot Springs. 2013. *Desert Hot Springs Climate Action Plan*. May 2013. Accessed April 2018. http://199.87.185.104/sirepub/cache/2/13lpwnglr5o3or34nj50mqpe/106291010520180829137772.PDF.

CHAPTER 6
ALTERNATIVES TO THE PROJECT

6.1 ALTERNATIVES TO THE PROJECT

In accordance with California Environmental Quality Act (CEQA) Section 15126.6, this chapter of the Draft Supplemental Environmental Impact Report (SEIR) contains a comparative evaluation of the Desert Hot Springs Wind Energy Repowering Project (Project) with alternatives to the Project, including a No Project Alternative. Consistent with CEQA Section 15126.6, this chapter focuses on alternatives to the Project that are capable of avoiding or substantially reducing significant adverse impacts associated with the Project, even if the alternatives may impede attainment of Project objectives or prove less cost efficient. In addition, implementation of a Project alternative may potentially result in new impacts that would not have resulted from the Project.

6.2 PROJECT ALTERNATIVES CONSIDERED IN THE WECS 20 PERMIT PROJECT FINAL ENVIRONMENTAL IMPACT REPORT

The WECS 20 Permit Project Final Environmental Impact Report (WECS 20 FEIR) evaluated four alternatives to the previously proposed project: (1) an Alternative Locations alternative; (2) a Reduced Number of Wind Turbines alternative; (3) a Reduced Size of Wind Turbines alternative; and (4) a No Project alternative. The WECS 20 FEIR found implementation of the Alternative Locations, Reduced Number of Wind Turbines, and Reduced Size of Wind Turbines alternatives were infeasible. The only feasible alternative to the previously proposed project was found to be the No Project Alternative, and the proposed Project was determined to be environmentally superior to the No Project Alternative because it allowed for improved efficiency of the existing WECS 20 Wind Park.

6.3 PROJECT ALTERNATIVES CONSIDERED AND REJECTED

An EIR is required to identify any Project alternatives that were considered by the lead agency but were rejected as infeasible.

In determining an appropriate range of Project alternatives to be evaluated in this Draft SEIR, a number of possible alternatives were initially considered but ultimately rejected. Project alternatives were rejected because they could not accomplish the basic Project objectives; they would not have resulted in a reduction of environmental impacts; or they were considered infeasible to construct or operate.

Alternate Land Uses

Alternative land uses for the Project site, including residential, commercial/retail, industrial, or a mix of these land uses, were considered and rejected because these uses are not consistent with the

Project site's General Plan land use designation (I-E (Industrial Energy-Related)) or the site's zoning (I-E (Industrial-Scale Energy Production)).

The City of Desert Hot Springs General Plan's Land Use Element describes the I-E land use designation as providing for the development of energy-producing industries, including wind farms. Solar photovoltaic or thermal arrays could potentially be built on the Project site, given that the site is located within an area that typically experiences abundant sunlight and little cloud cover. However, Section 17.12.020 of Desert Hot Springs Zoning Ordinance does not list photovoltaic solar facilities as either a permitted or conditionally permitted use/activity within the I-E zone (or anywhere else in the City). Thus, it is assumed that a text amendment to the City's Zoning Ordinance would be required to include photovoltaic solar use within the I-E zone.

According to the Land Use Element, proposed development in the I-E land use designation may include those which are incidental to energy production or transmission, as well as those which do not impair development of energy resources (City of Desert Hot Springs 2000). Similarly, according to Section 17.16.010 of the Desert Hot Springs Zoning Ordinance, the I-E zone is intended to promote the developing and harvesting of the City's wind and other energy resources in the western areas, while ensuring their compatibility with adjacent land uses (City of Desert Hot Springs 2018). Additionally, this land use district provides for the development of interim uses that do not impair the long-term ability to develop and harvest wind and other energy resources.

As such, without approval of a General Plan Amendment, Zone Change, or text amendment to the City's Zoning Ordinance, all of which are discretionary approvals, and none of which are required for the Project, residential, commercial/retail, industrial, photovoltaic solar, or a mix of these land uses could not be developed on the Project site. In addition, given the highly variable topography found on the Project site and in the surrounding area, the site would be a disadvantageous location for most land use types other than commercial wind energy facilities, including any of the other land uses that are allowed in the I-E zone, such as plant nurseries and recreational facilities. Overall, the Project site would be an undesirable location for most, if not all, other land uses aside from wind energy facilities.

Alternate Sites

The Project is consistent with both the Project site's existing General Plan land use designation and the site's zoning, and the City has already approved the development of a wind energy facility on the site. As such, the City has already made a policy decision that the selected site is suitable for wind energy development.

At this time, the Project Applicant does not own or control other vacant, developable properties in the City. Few other currently vacant and presently available properties of similar size and with similar advantageous wind characteristics as the Project site are known to occur in the City or within the broader Project area. Even if there were a similar property available within close

proximity to the Project site, it is unlikely that this property would offer fewer developmental or environmental constraints, or fewer physical environmental impacts than the current site. In addition, since the Project site is already developed with a commercial wind energy facility, it is assumed that fewer environmental effects would occur by repowering the site as compared with developing a new vacant property in an alternate location. Therefore, an alternative location was not selected for more detailed analysis.

Retrofit Alternative

During the preliminary planning and design process for the Project, the Project Applicant evaluated the possibility of retrofitting the existing on-site wind turbines in lieu of decommissioning and removal. However, after extensive review, due to the age and condition of the existing on-site wind turbines, it was determined that retrofitting the turbines, including upgrading the blades and gearboxes and reinforcing the towers, was infeasible because of the lack of replacement parts for these machines, given that the models of turbines currently found on site have not been manufactured in decades. Additionally, after a visual analysis of many of the existing on-site wind turbines, the structural integrity of the turbines would be compromised. In addition, affixing larger, more efficient blades to the turbines would pose a hazard to both people and property. Therefore, a retrofit alternative was not selected for more detailed analysis.

6.4 PROJECT ALTERNATIVES UNDER FURTHER CONSIDERATION

The following provides analysis of three Project Alternatives: (1) the No Project Alternative, (2) the Reduced Decommissioning Alternative, and (3) the Reduced Footprint Alternative.

The evaluation provides a relative comparison between the Project and each of the Project Alternatives. The analysis considers the resource areas evaluated in Chapter 4, Environment Analysis, of this Draft SEIR. In many cases, the Project and a Project Alternative may share the same level of significance (e.g., both scenarios would result in a less-than-significant impact). However, although they might share the same level of significance under CEQA, the actual degree of impact may be slightly different for each scenario, and this relative difference is the basis for a conclusion of greater or lesser impacts compared to the Project.

An environmentally superior alternative is identified among the alternatives evaluated in this Draft SEIR. An alternative would be environmentally superior to the Project if it would result in fewer or less significant environmental impacts while achieving most of the Project Objectives identified in Chapter 3, Project Description, of this Draft SEIR.

6.4.1 No Project Alternative

Under this Project Alternative, implementation of the Project would not occur. The Project site would remain unchanged. Development activities related to the decommissioning of the existing on-site wind turbines, and construction and operation of the four new wind turbines and associated improvements, would not occur.

Under this scenario, the Project site would continue to operate as a commercial wind energy facility, consistent with the existing conditions. Operations and maintenance of the existing facility would continue to occur consistent with the baseline conditions. However, given the age and condition of many of the existing on-site wind turbines, it is assumed that many of the existing on-site wind turbines would eventually be taken offline and remain in place until such a time that it becomes impractical to continue operations and the entire facility is decommissioned. Under this alternative, the older turbines would eventually be decommissioned. It is assumed that following the eventual decommissioning of the existing turbines, the Project site would not be developed with new turbines (repowered).

Project Alternative Impact Analysis

In the near-term, conditions on the Project site would remain unchanged. However, over the long-term, the Project site would eventually contain numerous older wind turbines that have become inoperable or otherwise have been taken offline. On-site conditions would be identical to the baseline conditions, and because development activities associated with the Project would not occur, most environmental impacts would be reduced compared with those impacts under the Project conditions. This reduction in impacts would be experienced because construction of the four new wind turbines would not occur, and as such, any incremental environmental impacts related to earthwork, turbine installations, and other construction activities (emissions of air constituents and greenhouse gases (GHGs) from construction equipment, short-term increase in noise levels, potential to disturb subsurface cultural resources) associated with the proposed turbine construction would not occur. Additionally, similar to the Project, decommissioning the existing on-site wind turbines and removing them from the Project site would aid in eliminating the existing on-site visual "clutter."

Conclusion

Overall, all environmental impacts with the exception of those impacts related to aesthetics would be reduced compared with those impacts under the Project conditions. Few to none of the mitigation measures required for the Project would be necessary with the No Project Alternative, and this Project Alternative would not result in any significant adverse environmental impacts. However, the No Project Alternative would also not effectively assist California in meeting its Renewables Portfolio Standard (RPS) target (Project Objective 1); generate approximately twice the energy on the Project

site with the same electric capacity compared to the existing on-site wind turbines (Project Objective 2); allow for more visibility to avian species and increase avoidance potential (Project Objective 4); improve worker safety (Project Objective 5); or improve both local and regional grid stability by repowering the Project site (Project Objective 6).

6.4.2 Reduced Decommissioning Alternative

Under the Reduced Decommissioning Alternative, the Project site would still be repowered with the four new wind turbines. However, instead of decommissioning and removing all 69 existing on-site wind turbines, only those existing turbines that are in the footprint of the new turbines would be removed, while the other existing turbines would remain in place. Since the four new wind turbines would produce enough energy to meet the Project Applicant's contractual obligations, the remaining existing turbines would be taken offline but remain standing.

Project Alternative Impact Analysis

Aesthetics

Under the Reduced Decommissioning Alternative, the remaining existing on-site wind turbines, coupled with the four new wind turbines, would comprise a disjointed collection of wind turbines over the Project site. Compared with the existing Project conditions, the combination of remaining existing on-site wind turbines and new turbines would exacerbate the existing visual "clutter" that currently impacts the Project site. Therefore, aesthetics impacts would be increased under this Project Alternative.

Air Quality and Greenhouse Gas Emissions

Under the Reduced Decommissioning Alternative, fewer turbines to be decommissioned and removed from the Project site would, in turn, have an incremental reduction in the amount of air pollution and GHG emissions associated with the operation of heavy construction equipment during the existing turbine decommissioning phase. Therefore, air quality and GHG emissions impacts would be lessened under this Project Alternative.

Biological Resources

Under the Reduced Decommissioning Alternative, the reduction in the footprint of existing turbine decommissioning activities would equate to an incrementally reduced temporary impacts footprint compared with the Project conditions, resulting in fewer impacts to any potential habitat that may occur around the existing on-site wind turbines. However, the remaining existing on-site wind turbines, coupled with the new wind turbines, would result in more aerial obstructions with potentially greater risk of collision for avian species, as the distances between the wind turbines

would be reduced compared with both the existing conditions and the Project conditions. Therefore, biological resources impacts would be increased under this Project Alternative.

Cultural and Tribal Cultural Resources

Under the Reduced Decommissioning Alternative, the reduction in decommissioning activities would equate to an incrementally reduced temporary impacts footprint, resulting in less impacts to subsurface soils that underlay the existing on-site wind turbines. However, these underlying soils have already been heavily disturbed by previous development activities. Therefore, cultural and tribal cultural resources impacts would be similar under this Project Alternative.

Noise

Under the Reduced Decommissioning Alternative, the reduction in the number of existing on-site wind turbines to be decommissioned and removed from the Project site would, in turn, have an incremental reduction in short-term construction noise levels associated with the operation of heavy construction equipment during the existing turbine decommissioning phase. Operationally, the alternative would result in higher permanent noise levels compared with the Project because existing on-site wind turbines would remain, generating additional noise. Therefore, noise impacts would be increased under this Project alternative.

Conclusion

The mitigation measures required for the Project would also apply to the Reduced Decommissioning Alternative. Given that this Project Alternative is similar to the project proposed in the Wind Energy Conversion System (WECS) 20 EIR, both construction and operational characteristics would be similar, and often identical. There is the possibility under this Project Alternative, however, that impacts associated with aesthetics and biological resources, would be greater than those resulting from implementation of the Project.

In addition, given that fewer existing on-site wind turbines would be decommissioned and removed from the Project site, the Reduced Decommissioning Alternative would fail to reduce the overall development footprint and visual "clutter" on the Project site (Project Objective 3); not allow for more visibility to avian species and increase avoidance potential (Project Objective 4); or improve worker safety (Objective 5).

6.4.3 Reduced Footprint Alternative

Under the Reduced Footprint Alternative, the existing on-site wind turbines would be decommissioned and removed from the Project, and the Project would be constructed and operated as planned on the Project site. However, instead of four new wind turbines, only two new wind turbines would be constructed and operated as part of the Project.

Alternative Impact Analysis

Aesthetics

Under the Reduced Footprint Alternative, the Project site would largely resemble its pre-development conditions, although two new turbines would still be located on the site. Overall, the existing visual "clutter" that currently affects the Project site would be removed. However, although the site would still be repowered by two new wind turbines that would be up to 493 feet in height, the visual setting of the site would be incrementally more natural and open compared with the Project conditions. Therefore, aesthetics impacts would be lessened under this Project Alternative.

Air Quality and Greenhouse Gas Emissions

Under the Reduced Footprint Alternative, all existing on-site wind turbines would still be decommissioned and removed from the Project site. As such, the amount of air pollution and GHGs emissions associated with the operation of heavy construction equipment during the existing turbine decommissioning phase would be consistent with the Project conditions. However, given that two fewer new wind turbines would be constructed, air pollution and GHGs emissions associated with heavy equipment usage during the new turbine construction and eventual decommissioning of two, rather than four turbines, would be incrementally reduced. Therefore, air quality and GHG emissions impacts would be lessened under this Project Alternative.

Biological Resources

Under the Reduced Footprint Alternative, there would be reduced permanent impacts associated with the project footprint compared with the Project conditions, resulting in fewer impacts to any potential habitat found in the locations of the new wind turbines. In addition, fewer new wind turbines would provide more area to avian species, as the distances between the wind turbines would be further increased compared with both the existing conditions and the Project conditions. Therefore, biological resources impacts would be lessened under this Project Alternative.

Cultural and Tribal Cultural Resources

Under the Reduced Footprint Alternative, the reduction in the footprint of new turbine construction activities would equate to an incrementally reduced permanent impacts footprint, resulting in fewer impacts to subsurface soils that underlay the locations of the new wind turbines, reducing the opportunity of encountering unknown, unrecorded cultural resources during earthwork activities. However, these underlying soils have already been heavily disturbed by previous development activities and heavy storm activities and have low sensitivity for significant cultural and tribal cultural resources. Therefore, cultural and tribal cultural resources impacts would be similar under this Project Alternative.

Noise

A reduction in the number of new wind turbines to be constructed on the Project site would, in turn, have an incremental reduction in long-term noise level associated with operation of the Project, given that half as many new wind turbines would be generating noise. As such, operational noise levels would be decreased over both existing and Project ambient noise conditions. Therefore, noise impacts would be lessened under this Project Alternative.

Conclusion

All of the mitigation measures required for the Project would also apply to the Reduced Footprint Alternative. Under this Project Alternative, none of the environmental impacts associated with implementation of the Project would be are expected to be greater compared with the Project conditions, and most of them would be lower than impacts associated with the Project.

However, given that fewer new wind turbines would be constructed and operational on the Project site, the Reduced Footprint Alternative could not generate as much renewable energy as four new wind turbines could generate, and as a result, this Project Alternative would not significantly assist California in meeting its RPS target (Project Objective 1) or improve both local and regional grid stability by repowering the Project site (Objective 6) to the same extent as the Project, nor would it generate approximately twice the energy on the Project site with the same electric capacity compared to the existing on-site wind turbines (Project Objective 2) or create the same amount of new tax revenues in Riverside County (Project Objective 7). Further, under this Project Alternative scenario, it may be more challenging for the Project Applicant to attract commercially available financing to the same degree as the four-turbine Project (Project Objective 9).

6.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines Section 15126(e)(2) requires an EIR to identify an "environmentally superior alternative." If the No Project Alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other project alternatives. Each of the three Project Alternatives considered herein would lessen at least one environmental impact relative to the Project. Table 6-1 provides a comparison of the Project with the Project Alternatives based on the resources area addressed in Chapter 4, Environmental Impact Analysis, of this Draft SEIR. Table 6-2 presents how the Project and each of the Project Alternatives compare in terms of meeting the various Project Objectives.

Table 6-1
Project Alternatives Environmental Impacts Comparison

Environmental Issue	Project Impacts	No Project Alternative	Reduced Decommissioning Alternative	Reduced Footprint Alternative
Aesthetics	Less than Significant with the Incorporation of Mitigation	Similar	Increased	Lessened
Air Quality	Less than Significant with the Incorporation of Mitigation	Lessened	Lessened	Lessened
Biological Resources	Less than Significant with the Incorporation of Mitigation	Lessened	Increased	Lessened
Cultural and Tribal Cultural Resources	Less than Significant with the Incorporation of Mitigation	Lessened	Similar	Similar
Greenhouse Gas Emissions	N/A (the WECS 20 EIR did not analyze GHG emissions-related impacts)	Lessened	Lessened	Lessened
Noise	Less than Significant with the Incorporation of Mitigation	Similar	Increased	Lessened

Based on a comparison of the Project Alternatives, the Reduced Footprint Alternative would lessen environmental impacts for five resources areas analyzed in the Draft SEIR (aesthetics, air quality, biological resources, GHG emissions, and noise), while the Reduced Decommissioning Alternative would only reduce impacts for two areas (air quality and GHG emissions). Based on these findings, the Reduced Footprint Alternative would be considered the "environmentally superior alternative."

Table 6-2
Project Alternatives Compared to Project Objectives

Project Objective	Proposed Project	No Project Alternative	Reduced Decommissioning Alternative	Reduced Footprint Alternative
Objective 1: Assist California in meeting its RPS target of 100% of the energy generated in the state being produced by renewable energy sources by December 2045.	Yes	Yes (albeit to a lesser degree than the Project)	Yes	Yes (albeit to a lesser degree than the Project)
Objective 2: Generate approximately twice the energy on the Project site with the same electric capacity compared to the existing on-site wind turbines.	Yes	No	Yes	No
Objective 3: Reduce the overall development footprint and visual "clutter" on the Project site by removing the existing on-site wind turbines and replacing them with new modern wind turbines at a much lower replacement ratio.	Yes	No	No	Yes

Table 6-2
Project Alternatives Compared to Project Objectives

Project Objective	Proposed Project	No Project Alternative	Reduced Decommissioning Alternative	Reduced Footprint Alternative
Objective 4: Reduce the turbine blade rotational speeds, increase the rotor height, and expand the distances between the wind turbines on the Project site to allow for more visibility to avian species and increase avoidance potential.	Yes	No	No	Yes
Objective 5: Improve worker safety on the Project site by replacing the existing on-site wind turbines with new modern turbines that include advanced safety features and technology.	Yes	No	No	Yes
Objective 6: Improve both local and regional grid stability by repowering the Project site using new modern turbines with the capability to provide greater reactive power control.	Yes	No	Yes	Yes (albeit to a lesser degree than the Project)
Objective 7: Create new tax revenues in Riverside County.	Yes	No	Yes	Yes (albeit to a lesser degree than the Project)
Objective 8: Construct and operate a commercial wind facility prior to the December 30, 2020, expiration of the federal tax credit.	Yes	No	Yes	Yes
Objective 9: Construct and operate a wind energy project that can attract commercially available financing.	Yes	No	Yes	Yes (albeit to a lesser degree than the Project)

6.6 REFERENCES

City of Desert Hot Springs. 2000. *City of Desert Hot Springs General Plan*. Adopted September 5, 2000. http://www.cityofdhs.org/Planning_Documents.

City of Desert Hot Springs. 2018. Desert Hot Springs Municipal Code, Title 17, Zoning; Chapter 17.16, Industrial Districts, Section 17.16.010, Purpose. As amended June 2018. http://www.qcode.us/codes/deserthotsprings/.

CHAPTER 7
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