

Draft Biological Technical Report Tule Wind Project

Project Proponent

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Prepared for

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Acronyms and Abbreviations

ACEC	Area of Critical Environmental Concern
AED	Applicant's Environmental Document
AMM	Avoidance and Minimization Measures
ARPA	Archaeological Resource Protection Act
AST	Arroyo southwestern toad
BGEPA	Bald and Golden Eagle Protection Act
BLM	Bureau of Land Management
BMO	Biological Mitigation Ordinance
BMP	Best Management Practices
BMZ	Brush Management Zone
BRCA	Biological Resource Core Area
BTR	Biological Technical Report
CDFG	California Department of Fish and Game
CEC	California Energy Commission
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGF	California Fish and Game Code
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPPA	California Native Plant Protection Act
CNPS	California Native Plant Society
CPUC	California Public Utilities Commission
CSLC	California State Lands Commission
CSS	Coastal sage scrub
DPLU	Department of Planning and Land Use
EA	Environmental Assessment
ECMSCP	East County Multiple Species Conservation Program
ECO	East County
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
ESJ Gen-Tie	Energia Sierra Juarez Transmission Generation
FAA	Federal Aviation Administration
FR	Federal Register
ft	Feet/foot
GIS	Geographic Information System
GPS	Global Positioning System
HCP	Habitat Conservation Plan
HDR	HDR Engineering, Inc.
HMP	Habitat Management Plan
HVAC	Heating, ventilation, and air conditioning
I-8	Interstate 8
IBR	Iberdrola Renewables, Inc.
Inc.	Incorporated
LLC	Limited Liability Corporation
kHz	Kilohertz

km	Kilometer
kV	Kilovolt
m	Meter
MBTA	Migratory Bird Treaty Act
MM	Mitigation Measure
mph	Miles Per Hour
MSCP	Multiple Species Conservation Program
MUP	Major Use Permit
MW	Megawatt
NCCP	Natural Community Conservation Plan
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OHV	Off-Highway Vehicle
OHWM	Ordinary High Water Mark
O&M	Operation and Maintenance
PM _{2.5}	Ultra fine particulate matter
PM ₁₀	Fine particulate matter
QCB	Quino Checkerspot Butterfly
RCA	Resource Conservation Area
ROD	Record of Decision
ROW	Right-of-Way
RPO	Resource Protection Ordinance
RSA	Rotor Swept Area
RWQCB	Regional Water Quality Control Board
SAMP	Special Area Management Plan
SDAPCD	San Diego Air Pollution Control District
SDG&E	San Diego Gas & Electric
SODAR	Sonic Detection and Ranging System
SR	State Route
SSC	State Species of Concern
SWPPP	Storm Water Pollution Prevention Plan
T-Line	Transmission Line
U.S.	United States
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WEST	Western EcoSystems Technology, Inc.
WRA	Wind Resource Area
WRI	Wildlife Resources Institute
°F	Degrees Fahrenheit

SUMMARY

Pacific Wind Development Limited Liability Corporation (LLC), a wholly-owned subsidiary of Iberdrola Renewables, Inc. (IBR), is proposing to construct and operate the Tule Wind Project (proposed project) located near Boulevard, California. The proposed wind energy project will consist of: (1) up to 134 wind turbines; (2) access roads between turbines, including improvements to existing roadways and new roadways; (3) a 138 kilovolt (kV) overhead transmission line[T-line]; (4) a 34.5 kV overhead and underground electrical collector cable system; (5) 5-acre collector substation site; (6) 5-acre operation and maintenance site; (7) a temporary 5-acre concrete batch plant site; (8) a temporary 10-acre parking area; (9) 19 two-acre temporary laydown areas; (10) two permanent meteorological towers; and (11) a Sonic Detection and Ranging System unit. The proposed project footprint (impact extent) will affect approximately 773 acres within the 4,952-acre survey corridor.

This Biological Technical Report (BTR) has been prepared for the Tule Wind Project with the Bureau of Land Management (BLM) as the lead agency under the National Environmental Policy Act (NEPA), and the California Public Utilities Commission (CPUC) as lead agency under the California Environmental Quality Act (CEQA). The BTR addresses the federal Endangered Species Act (ESA), California ESA, NEPA, CEQA, and other applicable federal, state, and local requirements for analysis of potential impacts on biological resources resulting from the construction, operation and maintenance, and decommissioning of the proposed project. The BTR also addresses requirements for the CPUC, BLM, California State Lands Commission (CSLC), County of San Diego's Resource Protection Ordinance (RPO), and Biological Mitigation Ordinance (BMO).

This BTR integrates information collected from a variety of literature sources and field surveys to describe the biological resources within the vicinity of the project area. The project area includes habitats associated with the project from Thing Valley east into McCain Valley. Information was gathered from publicly available literature, data provided by relevant land management agencies, reviews of aerial photography and U.S. Geological Survey (USGS) topographic maps, data from the State of California, data from the BLM, and data from the U.S. Fish and Wildlife Service (USFWS), and the results of field surveys of the survey corridor conducted from 2005 to 2010. The purpose of the data collection and analysis for this report is to: (1) assemble a vascular plant and vertebrate animal inventory of the site; (2) determine whether any sensitive species or habitats could be significantly impacted by development of the proposed project; and (3) propose mitigation measures that could avoid or minimize impacts of construction, maintenance and operation, and decommissioning of the proposed project. The BTR analyzes potential project impacts to biological resources for incorporation into the Applicant's Environmental Document (AED) prepared for the proposed project.

Various field surveys have been conducted for the proposed project and include: vegetation community classification and mapping, jurisdictional wetland and waterway delineation, sensitive species habitat assessment, bat (chiropteran) and avian surveys, a Quino checkerspot butterfly ([QCB] *Euphydryas editha quino*) habitat assessment and survey, and golden eagle (*Aquila chrysaetos*) survey. A complete list of surveys conducted in association with this project is shown in **Table S-1**. The survey corridor includes the proposed project footprint and alternatives footprint (potential impact extent) and the surrounding buffer area that was surveyed for biological resources. Results and analysis of these efforts are included in the BTR.

**Table S-1
Survey Type, Dates, and Contractor**

Survey Type	Date	Contractor
Vegetation Community Classification	November 2009 to January 2010	HDR Engineering, Inc.
Wetland Survey	August 2009 to January 2010	HDR Engineering, Inc.
Avian Survey	March 2005 to March 2006	Tetra Tech Energy, Inc.
Avian Survey	September 2007 to September 2008	Tetra Tech Energy, Inc.
Bat Survey	September 2008 to August 2009	West EcoSystems Technology, Inc.
Bat Survey	March 2010 and is ongoing	West EcoSystems Technology, Inc.
Quino Checkerspot Butterfly Habitat Assessment Survey	2008	Dudek, Inc.
Quino Checkerspot Butterfly Habitat Assessment Survey	February 2010 to March 2010	HDR Engineering, Inc.
Quino Checkerspot Butterfly Focused Survey	March 2009 to April 2009	Dudek, Inc.
Quino Checkerspot Butterfly Focused Survey	March 2010 to May 2010	HDR Engineering, Inc.
Nesting Golden Eagle	March 2010	Wildlife Resources Institute
Rare Plant Survey	March 2010 and is ongoing	HDR Engineering, Inc.
Granite Magic Gecko/Barefoot Banded Gecko Habitat Assessment	June 2010	Eric Dugan/HDR Engineering, Inc.
Peninsular Bighorn Sheep (Site Visit)	June 2010	USFWS, BLM, County of San Diego site visit

One federal listed species, Quino checkerspot butterfly (QCB), and several special status species are known to occur in the survey corridor (**Table S-2**). The QCB is anticipated to be adversely impacted by the proposed project. Peninsular bighorn sheep (*Ovis canadensis nelson*), a federal endangered species, is known to occur east of the project area. Based on the distance from the proposed project, documented bighorn sheep use east of the area, and lack of suitable bighorn sheep habitat in the vicinity, the proposed project is not expected to directly impact Peninsular bighorn sheep. Noise from possible blasting may cause an indirect temporary impact. An avian survey (Tetra Tech 2007-2008) previously identified the southwestern willow flycatcher (*Empidonax traillii extimus*), a state and federal listed subspecies, in the vicinity of the Tule Wind Project. This subspecies was later determined to not have been positively identified (Avian Studies Record of Conversation, **Appendix L**). The avian survey also reported another willow flycatcher (*Empidonax traillii*), a state listed species. Both observations were more than a mile from the survey corridor and outside the project area. Willow flycatchers, including the southwestern willow flycatcher subspecies, breed in riparian habitat. The project area supports a limited amount of suitable riparian habitat that is not substantial enough to be used by the species for breeding purposes. The proposed project is not anticipated to impact willow flycatchers.

Drainages subject to U.S. Army Corps of Engineers (USACE) (Clean Water Act Section 404), California Department of Fish and Game (CDFG) (Fish and Game Code 1602 Streambed Alteration Agreement), Regional Water Quality Control Board (RWQCB, Clean Water Act Section 401), and County of San Diego RPO jurisdiction occur within the survey corridor and could be impacted by the project. Impacts to jurisdictional areas are summarized in the BTR and fully analyzed in the Jurisdictional Wetland Delineation Report included as **Appendix D** of this BTR.

**Table S-2
Special Status Species Known On-Site**

Species	Latin Name	Status	Habitat	Survey Time	Notes
INVERTEBRATES					
Quino Checkerspot Butterfly	<i>Euphydryas editha quino</i>	Fed: Endangered State: None BLM: None MSCP: Proposed Covered* County: Group 1	Found in grasslands, coastal sage scrub, chamise chaparral, red shank chaparral, juniper woodland, and semi-desert scrub. Needs native species of plantain as host plant.	February-April	Observed on-site.
AMPHIBIANS					
Western Spadefoot Toad	<i>Scaphiopus hammondi</i>	Fed: None State: SSC BLM: Sensitive MSCP: Proposed Covered* County: None	Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains.	October-May (during heavy rains)	Tadpoles observed onsite.
REPTILES					
Coast (Blainville's) horned lizard	<i>Phrynosoma blainvillei</i>	Fed: None State: SSC BLM: Sensitive MSCP: None County: Group 2	Many native habitats usually in association with harvester ants.	Year round	Observed on-site.
Coast patch nosed snake	<i>Salvadora hexalepis virgultea</i>	Fed: None State: SSC BLM: None MSCP: Proposed Covered* County: Group 2	Inhabits semi-arid brush and chaparral in canyons, rocky hillsides and plains from sea level to 2,100m (7,000 ft).	March-October	Observed on-site.
Coastal rosy boa	<i>Charina trivirgata roseofusca</i>	Fed: None State: None BLM: Sensitive MSCP: None County: Group 2	Found in arid scrublands, semi-arid shrub-lands, rocky shrub-lands, rocky deserts, canyons, and other rocky areas.	Hottest and coldest months of the year the boa remains inactive. Surveys are weather dependent.	Observed on-site.
Common chuckwalla	<i>Sauromalus ater</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* County: Group 2	Rocky deserts and outcrops in southern California at elevations from sea level to 4500 feet (1,300 meters).	March-June	Observed on-site.
Red diamond rattlesnake	<i>Crotalus ruber ruber</i>	Fed: None State: SSC BLM: None MSCP: Proposed Covered* County: Group 2	Inhabits arid scrub, coastal chaparral, oak and pine woodlands, rocky grassland, cultivated areas, and into rocky desert flats.	Surveys are weather dependent; in summer, autumn and spring.	Observed on-site.

Species	Latin Name	Status	Habitat	Survey Time	Notes
BIRDS					
Cooper's hawk	Accipiter cooperii	Fed: None State: None BLM: None MSCP: None County: Group 1	Common resident in trees, especially pines, hard-wood groves and riparian cottonwoods and sycamores.	April-June	Observed on-site.
Golden eagle	Aquila chrysaetos	Fed: BGEPA State: Fully Protected BLM: Sensitive MSCP: Proposed Covered* County: Group 1	Found in open coniferous forest and barren areas, especially in hilly or mountainous regions.	Year round	Observed on-site. A nest was located near the proposed project footprint, approximately 500 feet from the project footprint. However, no nests are known to occur on or within 4,000 feet of County land parcels.
Loggerhead shrike	Lanius ludovicianus	Fed: None State: SSC BLM: None MSCP: Proposed Covered* County: Group 1	Inhabits open brushy areas, meadows, pastures, orchards, thickets along roads, and hedges.	Year round	Observed on-site
Long-eared owl	Asio otus	Fed: None State: SSC BLM: None MSCP: Proposed Covered* County: Group 1	Inhabits dense vegetation adjacent to open grassland or shrub-land, and open forests.	Year round	Incidental observation**, winter 2007.
Northern harrier	Circus cyaneus	Federal: None State: SSC (nesting) BLM: None MSCP: Proposed Covered* County: Group 1	Found in abandoned fields, upland maritime heaths, wet hayfields, salt marshes, and cattail marshes.	July-February	Observed on-site.
Olive-sided flycatcher	Contopus cooperi	Federal: None State: SSC (nesting) BLM: None MSCP: None County: Group 2	Found on edges, openings, and natural and human-created clearings adjacent to otherwise relatively dense forests.	Summer	Observed on-site.
Prairie falcon	Falco mexicanus	Fed: None State: None BLM: None MSCP: None County: Group 1	Often found where there are large patches of low vegetation and areas of open ground, vertical cliffs with a rock overhang are preferred for nesting.	Year round	Observed on-site.

Summary

Species	Latin Name	Status	Habitat	Survey Time	Notes
Rufous-crowned sparrow	<i>Aimophila ruficeps</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* County: Group 1	Found in coastal sage scrub and other low growing scrublands.	Year round	Observed on-site.
Turkey vulture	<i>Cathartes aura meridionalis</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* County: Group 1	Found in dry, open country, farmlands, and woodlands. Needs tall trees to roosts in.	Year round	Observed on-site
Vaux's swift	<i>Chaetura vauxi</i>	Fed: None State: SSC BLM: None MSCP: None County: None	Found in mature forest but will also forage and migrate over open country.	Summer	Observed on-site.
Western bluebird	<i>Sialia mexicana</i>	Fed: None State: None BLM: None MSCP: None County: Group 2	Woodlands, farmlands, orchards, savannas, riparian woodlands, and burned or disturbed woodlands.	Year round.	Observed on-site.
Yellow warbler	<i>Dendroica petechia</i>	Fed: None State: SSC BLM: None MSCP: Proposed Covered* County: Group 2	Inhabits riparian areas, or strips of riparian habitat in foothills.	March-September	Observed on-site
MAMMALS					
Mountain lion	<i>Felis concolor</i>	Fed: None State: None BLM: None MSCP: None County: Group 2	Steep rocky canyons from sea level to 10,000' and riparian habitats	Year round	Observed on-site
San Diego black-tailed jackrabbit	<i>Lepus californicus bennettii</i>	Fed: None State: SSC BLM: None MSCP: Proposed Covered* County: Group 2	Typically found in open habitats without dense canopy.	Year round	Observed on-site.
Southern mule deer	<i>Odocoileus hemionus</i>	Fed: None State: None BLM: None MSCP: None County: Group 2	Deserts, forest-conifer forest, grasslands, shrubland and chaparral.	Year round	Observed on-site
Western Small-footed myotis	<i>Myotis ciliolabrum</i>	Fed: None State: None BLM: Sensitive MSCP: None County: Group 2	Found in deserts, chaparral, riparian zones, and western coniferous forest.	Late spring-early autumn	Observed on-site.
PLANTS					
Desert beauty	<i>Linanthus</i>	Fed: None	Found in high desert chaparral, usually in	April-May	Observed on-site.

Summary

Species	Latin Name	Status	Habitat	Survey Time	Notes
	bellus	State: None BLM: None MSCP: Proposed Covered* CNPS: List 2.3 County: List A	broad sandy openings.		
Jacumba milkvetch	Astragalus douglasii var. perstrictus	Fed: None State: None BLM: Sensitive MSCP: Proposed Covered* CNPS: List 1B.2 County: List A	Found in chaparral, valley grasslands, and foothill woodlands.	April-June	Observed on-site.
Jacumba monkey flower	Mimulus aurantiacus var. aridus	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS: List None County: None	Found among large rock in chaparral.	March - September	Observed on-site.
Laguna Mountain alumroot	Heuchera brevistaminea	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS: List 1B.3 County: List A	Found in rocky outcrops in montane chaparral.	May-July	Observed on-site
Mountain Springs bush lupine	Lupinus excubitus var. medius	Fed: None State: None BLM: Sensitive MSCP: Proposed Covered* CNPS: List 1B.3 County: List A	Found in pinyon juniper woodland and Sonoran Desert scrub at higher elevations.	March-April	Observed on-site
Oceanblue larkspur	Delphinium parishii ssp. subglobosum	Fed: None State: None BLM: None MSCP: None CNPS: List 4.3 County: List D	Creosote brush scrub, chaparral, Sonoran desert scrub and pinyon-juniper woodlands and at elevations of 1,968 to 5,905 feet.	March-June	Observed on-site.
Palomar monkey flower	Mimulus palmeri	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS: List 4.3 County: List D	Lower montane coniferous forest and chaparral.	April-July	Observed on-site.
Payson's jewel flower	Caulanthus simulans	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS: List 4.2 County: List D	Grows in sheephead rocky fine sandy loam.	March-June	Observed on-site.

Species	Latin Name	Status	Habitat	Survey Time	Notes
San Diego hulsea	Hulsea californica	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS: List 1B County: List A	Found in montane coniferous forest and lightly disturbed chaparral.	April-June	Observed on-site.
Southern jewel-flower	Streptanthus campestris	Fed: None State: None BLM: None MSCP: None CNPS: List 1B.3 County: List A	Found in juniper woodland or high desert transitional chaparral.	May-July	Observed on-site.
Sticky geraea	Geraea viscida	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS: List 2.3 County: List B	Found in high desert chaparral openings.	May-June	Observed on-site.
Tecate tarplant	Deinandra floribunda	Fed: None State: None BLM: Sensitive MSCP: Proposed Covered* CNPS: List 1B.2 County: List A	Associated with sandy washes in the high desert.	August-October	Observed on-site.

*Listed in County of San Diego draft (East County) MSCP Plan covered species list

**Potentially observed outside the survey corridor or while in transit to and from the site.

Key:

Fed = Federal listing.

State = State listing.

BLM = Bureau of Land Management listing.

MSCP = Multiple Species Conservation Program listing.

CNPS = California Native Plant Society listing.

County = County of San Diego listing.

SSC = State Species of Concern

BGPA = Bald and Golden Eagle Act

List 1B.2 = List 1b: Rare, threatened, or endangered in California and elsewhere. 0.2: Fairly endangered in California.

List 2.3 = List 2: Rare, threatened, or endangered in California, but more common elsewhere. 0.3: Not very endangered in California.

List 4.2 = Limited distribution (Watch list). 0.2: Fairly endangered in California.

List 4.3 = Limited distribution (Watch list). 0.3: Not very endangered in California.

List A = Plants rare, threatened or endangered in California and elsewhere.

List B = Plants rare, threatened or endangered in California but more common elsewhere.

Limitations common to all surveys conducted for this project include limited access to areas that are located primarily on private parcels along Ribbonwood Road, Old Highway 80, and McCain Valley Road; and restricted access to Manzanita and Campo Indian Reservations. These areas are primarily existing rural developments and access roads that may or may not require minimal improvements. Utilization of existing development and access roads will likely not result in impacts to surrounding habitat.

The overall project area is approximately 15,390 acres, with the proposed project footprint (impact extent) occurring on approximately 773 acres (229.9 temporary and 542.7 permanent). As part of the habitat assessment for the proposed project, a 4,952-acre survey corridor was established which includes the proposed project footprint, five alternatives, and buffer area around each feature. The total project impact would affect approximately 15.6 percent (4.6% temporary and 11% permanent impacts) of the total area surveyed (survey corridor) and approximately 5 percent of the total project area.

Approximately 96 percent of the proposed project footprint provides wildlife habitat in the form of native and non-native vegetation. Vegetation communities within the survey corridor include: upper Sonoran subshrub scrub; montane buckwheat scrub; big sagebrush scrub; northern mixed chaparral; semi-desert chaparral; chamise chaparral; redshank chaparral; scrub oak chaparral; upper Sonoran manzanita chaparral; southern north slope chaparral; coast live oak woodland; mule fat scrub; southern willow scrub; southern riparian woodland; and non-native grassland. Approximately one percent of the project footprint supports land use in the form of rural residential development, agriculture, heavily disturbed land, roads, and non-vegetated channels. Approximately 20 acres of private lands within the proposed construction project footprint remain unsurveyed due to access restrictions. Given these areas are primarily existing rural development and access roads that may or may not require minimal improvements, utilization of existing development and access roads will likely not result in impacts to habitat.

1.0 INTRODUCTION

1.1 Purpose of the Report

This Biological Technical Report (BTR) has been prepared for the Tule Wind Project (proposed project) with the Bureau of Land Management (BLM) as the lead agency under the National Environmental Policy Act (NEPA), and the California Public Utilities Commission (CPUC) as lead agency under the California Environmental Quality Act (CEQA). The BTR addresses the federal Endangered Species Act (ESA), California ESA, NEPA, CEQA, and other applicable federal, state, and local requirements for analysis of potential impacts on biological resources resulting from the construction, operation and maintenance, and decommissioning of the proposed project. The BTR also addresses requirements for the CPUC, BLM, California State Lands Commission (CSLC), County of San Diego Resource Protection Ordinance (RPO) and County of San Diego Biological Mitigation Ordinance (BMO).

The BTR analyzes potential project impacts to biological resources for incorporation into the Applicant's Environmental Document (AED) prepared for the proposed project. HDR Engineering, Inc. (HDR) and others have conducted biological surveys for the proposed project. The survey corridor includes approximately 4,952 acres and encompassed the proposed project footprint and all lands potentially affected by alternatives to the proposed project. The proposed project footprint (impact extent) will affect approximately 773 acres within the 4,952-acre survey corridor. This report presents data and analysis regarding existing conditions of the survey corridor and effects to biological resources from implementation of the proposed project.

The survey corridor refers to the proposed project footprint and alternatives footprint (impact extent) and the surrounding buffer area that was surveyed for biological resources. The purpose of data collection and analysis for the proposed project is to: (1) assemble a vascular plant and vertebrate animal inventory of the survey corridor; (2) determine whether any sensitive species or habitats could be significantly impacted by development of the proposed project; and (3) present quantitative and qualitative analysis of adverse environmental effects from the proposed project. Multiple biological surveys for the proposed project have been conducted from 2005 to 2010. The BTR evaluates potential adverse environmental effects to sensitive biological resources and sets forth mitigation measures that will avoid or minimize impacts. It includes an account of the results of the various surveys conducted on behalf of Iberdrola Renewables, and presents the potential impacts to biological resources that will result from the construction, operation and maintenance, and decommission of the proposed project.

1.2 Project Location and Description

The proposed project is located in the eastern portion of San Diego County, California, approximately 50 miles east of the City of San Diego and 90 miles west of the California-Arizona border. The project area extends north from the community of Boulevard, California and lies within the County of San Diego Mountain Empire and Desert Planning areas. The project area is accessed via Interstate 8 (I-8) exit 65 to State Route 94 (SR-94)/Ribbonwood Road, and via Old Highway 80 to McCain Valley Road. The general location and project area, as well as the proposed project footprint and alternatives are shown in **Figures 1-1a through 1-1e**.

The proposed project is located on a combination of lands administered by the BLM, tribal lands of the Ewiiapaayp Band of Kumeyaay Indians, the California State Lands Commission, and privately held lands within County of San Diego BMO regulated parcels (**Figure 1-2**). The majority of the proposed project footprint lies within the McCain Valley BLM designated Resource Conservation Area and Land Cooperative. The majority of the project would be built on federal BLM lands although turbines and

other project components are also proposed on lands owned by the Ewiiapaayp Reservation, Manzanita and Campo Reservation (project access only), as well as lands owned by the CSLC and privately-owned lands. Access authorization through the Manzanita and Campo Indian Reservations is currently pending and those areas remain unsurveyed (shown in **Figures 1-1a and 1-1c**).

The project proponent, Iberdrola Renewables, Inc. (IBR), is requesting a right-of-way (ROW) grant for a term of no less than 30 years from the BLM. Iberdrola Renewables has also applied to lease a state-owned parcel administered by the CSLC. Other components of the project are proposed to be located on Rough Acres Ranch, a privately owned property located in the southern half of McCain Valley. The overall project area including all portions of the BLM and State lands, Rough Acres Ranch, and tribal lands is approximately 15,390 acres. Iberdrola Renewables was issued a temporary ROW (Serial Number CA-45248) by the BLM for wind testing and monitoring in 2004, which was updated in 2007 and 2010. The portions of the project that are on private lands require a Major Use Permit (MUP) through the County of San Diego. An application for MUP was submitted to the County of San Diego in October 2009 and is pending approval. Three meteorological towers and one temporary mobile weather structure have been previously installed on-site as part of the Tule Wind Meteorological Tower Installation Project with a finding of no significant impact (BLM 2010).

Proposed Project with Proposed Transmission Line

The primary components of the facility, design, and operation of the proposed project with proposed transmission line include:

1. Up to 134 wind turbines, between 328 and 492 feet in height, to produce 200 megawatts (MW) of electricity.
2. Access roads between turbines, including improvements to existing roadways and new roadways to accommodate construction and delivery of equipment;
3. A 138 kilovolt (kV) overhead transmission line from the proposed substation to be interconnected with the San Diego Gas & Electric (SDG&E) proposed Rebuilt Boulevard Substation;
4. A 34.5 kV overhead and underground electrical collector cable system connecting the turbines to the collector substation;
5. A 5-acre collector substation site;
6. A 5-acre operation and maintenance (O&M) building site;
7. A temporary 5-acre concrete batch plant site;
8. A temporary 10-acre parking area;
9. Nineteen 2-acre temporary laydown areas;
10. Two permanent meteorological towers; and
11. One Sonic Detection and Ranging System (SODAR) unit, used to measure wind profile at various heights.

The maximum build-out of the project allows for up to 134 1.5 MW turbines. In order for the project to function at full capacity (200 MW), a minimum of 67 3.0 MW turbines would be necessary. Turbines with a smaller output can be spaced closer together, whereas turbines with a larger output require larger spacing; nonetheless the total project extent is similar in both cases. Currently, the layout of the proposed project footprint with the preferred transmission line route includes a potential total of up to 134 turbines.









