2.3 Biological Resources

This section discusses potential impacts relating to biological resources resulting from construction and operation of the Campo Wind Project with Boulder Brush Facilities (Project) located in the County of San Diego (County). The analysis is based on review of existing resources; technical data; and applicable laws, regulations, and guidelines; as well as the Biological Resources Technical Report prepared for the Project (Appendix D to this Environmental Impact Report [EIR]).

The Project consists of both the Campo Wind Facilities that would be located within the Campo Band of Diegueño Mission Indians (Tribe) Reservation (Reservation) and the Boulder Brush Facilities that would be located on adjacent land leased from a private landowner within the Boulder Brush Boundary. Collectively, the entire land area within both the Reservation Boundary and Boulder Brush Boundary comprise the Project Area. The Campo Wind Facilities would be located within a corridor of approximately 2,200 acres of land (Campo Corridor) within the approximately 16,000-acre Reservation Boundary. The Boulder Brush Facilities would be located within a corridor of approximately 320 acres of land (Boulder Brush Corridor) within the approximately 2,000-acre Boulder Brush Boundary. Collectively, the Campo Corridor and the Boulder Brush Corridor compose the approximately 2,520-acre Project Site. Project disturbances associated with construction of the Campo Wind Facilities within the Campo Corridor are expected to be approximately 800 acres, whereas Project disturbances associated with the construction of the Boulder Brush Facilities within the Boulder Brush Corridor are expected to be approximately 130 acres.

Project components within the Boulder Brush Corridor are referred to as the Boulder Brush Facilities. These facilities include 3.5 miles of the overhead gen-tie line, high-voltage substation, switchyard, connection to the San Diego Gas & Electric (SDG&E) Sunrise Powerlink, paved access road to the high-voltage substation and switchyard, and unpaved access roads, water tanks dedicated for firefighting purposes, and required fuel modification zones. Project components within the Campo Corridor are referred to as the Campo Wind Facilities. These facilities include Project wind turbines, 5 miles of the overhead gen-tie line, collector substation, electrical collection and communication system, operations and maintenance (O&M) building, met towers, and access roads. Further description of Project components is provided in Chapter 1, Project Description, Location, and Environmental Setting.

Prior to decommissioning of Boulder Brush Facilities, a decommissioning plan would be prepared and implemented. The decommissioning plan shall include revegetation of the previously disturbed areas. Soil would be revegetated with native plant species found within adjacent habitats. Locally available seed would be used, and seed from species that are unavailable for collection would not be incorporated into the final seed palette.

This section is divided into an analysis of potential impacts to biological resources related to candidate, sensitive, and special-status species; riparian habitat and sensitive natural habitat; jurisdictional wetlands and waterways; wildlife movement and nursery sites; and local policies, ordinances, and adopted plans related to biological resources. The analysis under each of these topic areas is presented for the Project as a whole, and also presents biological impacts within the Boulder Brush Boundary as separate from biological impacts within the Reservation Boundary, as the jurisdiction and enforcement of mitigation within these areas differ. Land within the Boulder Brush Boundary is under the land use jurisdiction of the County and is subject to local, state, and federal regulations, with mitigation enforcement by the County and applicable agencies. Land within the Reservation Boundary is subject to federal regulations only, and mitigation would be enforced by the Campo Environmental Protection Agency and associated federal agencies (i.e., U.S. Army Corps of Engineers [ACOE] and U.S. Fish and Wildlife Service [USFWS]). Consistent with California Environmental Quality Act (CEQA) Section 21083.7, the analysis herein incorporates the analysis included in the Environmental Impact Statement (EIS) prepared by the Bureau of Indian Affairs (BIA) for the Project (BIA 2019), as applicable.

Comments received in response to the Notice of Preparation included concerns regarding the baseline surveys conducted in 2017 and 2018 by Dudek; habitat loss; impacts to open space and preserved lands; impacts to species protected under the California Endangered Species Act; impacts to federally endangered species such as the Quino checkerspot butterfly (*Euphydryas editha quino*); impacts to golden eagle (*Aquila chrysaetos*); avoidance of the avian breeding season during construction; impacts to nesting birds protected by the Migratory Bird Treaty Act; avian species strikes; potential increase in vectors and rodents due to decrease in predatory avian species; impacts to local bird and bat populations; noise impacts to biological resources; off-site mitigation land location and habitat value; bird migration patterns; wetland and riparian impacts; impact of water use on biological resources; wildlife movement and corridors; location of the Project within the current East County Multiple Species Conservation Plan area; decommissioning and restoration; and cumulative biological resource impacts. These concerns were considered during preparation of this section. A copy of the Notice of Preparation and comment letters received are included in Appendix A of this EIR.

2.3.1 Existing Conditions

2.3.1.1 Regional Overview

Boulder Brush Corridor

The Boulder Brush Corridor is located in the McCain Valley area and lies between two major drainage divides: the Tecate Divide to the west, and the In-Ko-Pah Mountains to the east. The surrounding landscape consists of a mixture of large-scale wind energy projects, large-lot rural residences and open space with mountainous terrain consisting of steep slopes, prominent

ridgelines, and rock outcroppings. The terrain in the area ranges from valley bottoms to house-sized boulder-covered ridgelines. The elevation across the Boulder Brush Corridor ranges from approximately 3,280 feet above mean sea level (amsl) to approximately 4,120 feet amsl.

The Boulder Brush Corridor totals approximately 320 acres (Figure 2.3-1, Existing Biological Resources – Boulder Brush Corridor – Index). Figures 2.3-1 through 2.3-4 are index maps that refer to figure mapbooks in Appendix D. The Boulder Brush Corridor would contain all of the Boulder Brush Facilities. The Boulder Brush Corridor is primarily undeveloped. There is, however, evidence of off-road motorcycles and other off-road vehicle activity which has resulted in trails of varying widths within the Boulder Brush Corridor. 'No Trespassing' signs have been posted at locations along the Boulder Brush Boundary to deter unauthorized off-road vehicle activity. The area surrounding the Boulder Brush Corridor within the Boulder Brush Boundary primarily consists of vacant land. The 500 kV Sunrise Powerlink traverses the northeast portion of the Boulder Brush Boundary. Outside of the Boulder Brush Boundary, the Kumeyaay Wind and Tule Wind facilities are located to the northwest, north, and east, respectively. In addition, several rural residential homes are located to the south.

The Boulder Brush Boundary is within the Anza Borrego Hydrologic Unit, Jacumba Hydrologic Area, and the McCain Hydrologic Subarea (722.71). The jurisdictional areas within the Boulder Brush Corridor consist of tributaries to Tule Creek, Tule Creek itself, and tributaries to Carrizo Creek. The majority of the Boulder Brush Corridor is characterized by small ephemeral channels, draining runoff, and surface flow from the hillslopes and roads that drain toward Tule Creek, which is located in the southern portion of the Boulder Brush Corridor. Many of these features do not directly connect to Tule Creek, since these surface features abate into uplands prior to a direct conveyance into Tule Creek; however, these features may have a subsurface connection to downstream receiving waters.

Tule Creek has a wide floodplain with occasional low-flow channels where it receives surface flow, but the majority of the floodplain appears to be supported by subsurface flow, indicated by the patches of riparian herbs, shrubs, and trees within portions of the floodplain. There are sections within the Boulder Brush Corridor where data was collected within Tule Creek that were dominated by upland species such as big sagebrush scrub, tall tumblemustard (*Sisymbrium altissimum*), and cheatgrass (*Bromus tectorum*).

The northern portion of the Boulder Brush Corridor includes ephemeral non-wetland waters that are tributary to Carrizo Creek. Many of these ephemeral channels have been directly impacted by off-road vehicle use (predominantly motorized dirt bikes). The disturbed areas created by these activities often bisect the channel, or the length of the channel shows evidence of motorized dirt bike use. Overall, the features in the Boulder Brush Corridor are dry and lack evidence of recent flows, which is likely due to lack of rainfall in recent years.

Tule Creek receives surface and subsurface flows from headwaters originating in the Laguna Mountains northwest of the Boulder Brush Corridor. It continues draining in a downward gradient in an east and southeast orientation into Tule Lake, located approximately 4.5 miles southeast of the Boulder Brush Corridor. Water then flows into Tule Canyon, which eventually outlets into Carrizo Creek where it drains north–northeast. Carrizo Creek turns into Carrizo Wash and connects to San Felipe Wash and eventually drains into the Salton Sea.

Campo Corridor

The majority of the Project Site is located within the Reservation Boundary; this 2,200-acre portion of the Project Site is referred to as the Campo Corridor (Figure 2.3-2, Existing Biological Resources – Reservation – Index). The Campo Corridor would contain all of the Campo Wind Facilities. The Reservation is located in the inner-montane zone of southeastern San Diego County, west of a desert transition zone associated with the Sonoran Desert. Elevation within the entire Reservation ranges from 3,280 to 4,120 feet amsl. Topography of the Reservation exhibits a range from moderate to steep ridges, to semiarid plateaus and valleys. The area is in a desert transition zone, supporting desert and high desert habitats and vegetative communities. The Reservation is in the central area of the Peninsular Ranges geomorphic province. Altitude and relief generally decrease from east to west.

The Reservation supports large, intact expanses of relatively undisturbed habitats characteristic of the region. Dense chaparral covers much of the undeveloped portions of the Reservation, with oak woodlands and riparian habitats present along scattered canyons. A series of north–south-oriented ridges separated by the occasional broad valley or narrow drainages dominate the topography, and various large rock outcrops occur primarily along the ridgelines. Scattered, low-density commercial and residential developments are located within and adjacent to the Reservation. Other development features present include major transportation corridors (Interstate [I] 8 and State Route [SR] 94), asphalt and compacted earthen roads, trails, and fencing.

Drainage patterns on the Reservation vary greatly across topographic changes. Campo Creek flows in an east–west direction through the southern portion of the Reservation. There are numerous tributaries to Campo Creek as well as seeps and springs on the Reservation. Surface water on the Reservation is not sufficient to support domestic uses; therefore, domestic water resources are solely from groundwater wells.

2.3.1.2 Habitat Types/Vegetation Communities

Boulder Brush Corridor

In 2018, 15 vegetation communities and two land cover types were mapped by Dudek biologists within the Boulder Brush Corridor. Native vegetation communities within the Boulder Brush

Corridor consist of 44.4 acres of montane buckwheat scrub, 32.2 acres of big sagebrush scrub, 87.1 acres of granitic northern mixed chaparral, 11.5 acres of granitic chamise chaparral, 46.0 acres of red shank chaparral, 42.7 acres of semi-desert chaparral, 14.8 acres of wildflower field, 3.4 acres of emergent wetland, 0.9 acres of southern arroyo willow riparian forest, and 19.9 acres of coast live oak woodland (including open coast live oak woodland). Two non-native vegetation communities, disturbed habitat (10.9 acres) and eucalyptus woodland (2.3 acres), and two land cover types, unvegetated stream channel (1.1 acres) and urban/developed (0.2 acres), were mapped within the Boulder Brush Corridor. These vegetation communities and land cover types are described below. Table 2.3-1, Vegetation Communities and Land Cover Types within the Campo Corridor and Boulder Brush Corridor, presents the acreages. Spatial distributions are presented in Figure 2.3-1, and in the Figure 4-1 series of Appendix D.

The County requires mitigation at varying ratios for many vegetation communities. These vegetation communities follow the Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008). Vegetation communities considered special status are those that require mitigation by the County (County of San Diego 2010a) (Table 2.3-1).

Campo Corridor

Twenty-two vegetation communities and land cover types were mapped by Dudek biologists within the Campo Corridor (Table 2.3-1). Sensitive vegetation communities within the Campo Corridor include 0.35 acres of emergent wetland, 0.01 acres of freshwater marsh, 0.05 acres of mulefat scrub, 0.18 acres of southern willow scrub, 1.46 acres of unvegetated stream channel, 0.85 acres of southern coast live oak riparian forest, 34.66 acres of big sagebrush scrub (including disturbed), 458.87 acres of granitic chamise chaparral, 99.33 acres of granitic northern mixed chaparral, 48.23 acres of Montane buckwheat scrub, 39.07 acres of red shank chaparral, 19.21 acres of scrub oak chaparral, 10.59 acres of upper Sonoran subshrub scrub, 24.79 acres of non-native grassland (including broadleaf-dominated), 0.22 acres of valley Sacaton grassland, and 21.44 acres of coast live oak woodland (including open and dense forms). The Campo Corridor also includes 3.59 acres of developed area and 46.78 acres of disturbed habitat. Campo Corridor habitat acreages are presented in Table 2.3-1 and their spatial distributions are presented in Figure 2.3-2, Existing Biological Resources – Reservation and the Figure 4-2 series of Appendix D, Vegetation Communities and Land Covers – Reservation. As only the habitats under federal jurisdiction are regulated on the Reservation, further discussion of sensitive County vegetation communities on the Reservation is provided herein for disclosure purposes only. Additional information is also located in Section 3.5 and Appendix H of the EIS (BIA 2019).

Habitat Descriptions

Below is a general description of each habitat present within the Boulder Brush Corridor and Campo Corridor in alphabetical order. For a more detailed information about the species present

within each habitat, refer to Appendix D. Table 2.3-1 identifies the existing acreages of each habitat present, as well as the total acreages for the Project Site. Refer to Figures 2.3-1 and 2.3-2 and map series 4-1 within Appendix D for the location of these habitats within the Project Site.

Big Sagebrush Scrub (35210)

Big sagebrush scrub contains soft-woody shrubs, from 1.5 to 6.5 feet tall, with bare ground underneath and between shrubs (Oberbauer et al. 2008). Big sagebrush scrub typically occurs on a wide variety of soils and terrain, including rocky, well-drained slopes and fine-textured valley soils with high water table. In San Diego County, this vegetation community occurs on alluvial washes along dry margins of high desert and montane valleys. Within the Boulder Brush Corridor, areas mapped as big sagebrush scrub are dominated by big sagebrush. Approximately 32.2 acres of big sagebrush scrub is located within the Boulder Brush Corridor. The Campo Corridor contains approximately 34.66 acres of big brush scrub habitat.

Coast Live Oak Woodland (71160) and Open Coast Live Oak Woodland (71161)

Coast live oak woodland is dominated by a single evergreen species: coast live oak (*Quercus agrifolia*) with a canopy height reaching 32.8 to 82.0 feet (10 to 25 meters). The shrub layer is poorly developed. Areas mapped as open coast live oak woodland have an overall lower density of coast live oak, but still functions as a coast live oak woodland. The Boulder Brush Corridor contains 19.9 acres of coast live oak woodland (including open coast live oak woodland), while the Campo Corridor contains approximately 21.44 acres of coast live oak woodland.

Disturbed Habitat (11300)

Disturbed habitats are areas that have been physically disturbed and are no longer recognizable as a native or naturalized vegetation association (Oberbauer et al. 2008). These areas may continue to retain soil substrate. If vegetation is present, it is almost entirely composed of non-native vegetation. Within the Boulder Brush Corridor and Campo Corridor, dirt roads, prominent dirt trails, and off-highway-vehicle areas are mapped as disturbed habitat. The disturbed habitat mostly consists of bare ground with few plant species. The Boulder Brush Corridor contains approximately 10.9 acres of disturbed habitat and the Campo Corridor contains approximately 46.78 acres of disturbed habitat.

Emergent Wetland (52440)

Emergent wetland is a generally persistent wetland dominated by low-growing, perennial plant species. It occurs in channels, seeps, and springs, and along the margins of perennial aquatic features. The Boulder Brush Corridor contains approximately 3.4 acres of emergent wetland and the Campo Corridor contains approximately 0.35 acres of emergent wetland.

Eucalyptus Woodland (79100)

Eucalyptus woodland is not recognized by Holland (1986), but is recognized by Oberbauer et al. (2008). This "naturalized" vegetation community is widespread in Southern California and is considered a woodland habitat. It typically consists of monotypic stands of introduced Australian eucalyptus trees (*Eucalyptus* spp.). The understory is either depauperate (i.e., lacking species variety) or absent, owing to high leaf litter. Although eucalyptus woodlands are of limited value to most native plants and animals, they frequently provide nesting and perching sites for several raptor species. Approximately 2.3 acres of eucalyptus woodland is located within the Boulder Brush Corridor. The Campo Corridor does not contain eucalyptus woodland.

Freshwater Marsh (52400)

Freshwater marsh is a wetland habitat that develops at permanently flooded sites by freshwater lacking a significant current (Oberbauer et al. 2008). Because it is permanently flooded by fresh water, there is an accumulation of deep, peaty soils. It typically is dominated by species such as cattails (*Typha* spp.), sedge (*Carex* spp.), yellow nutsedge (*Cyperus esculentus*), and bulrushes (*Scirpus* spp.). This habitat is not present within the Boulder Brush Corridor. The Campo Corridor contains approximately 0.01 acres of freshwater marsh.

Granitic Chamise Chaparral (37210)

Granitic chamise chaparral contains shrubs, overwhelmingly dominated by chamise, from 3 to 10 feet tall, with little cover provided by other species (Oberbauer et al. 2008). Stump sprouting allows this vegetation to adapt to repeated fires. Granitic chamise chaparral typically occurs on dry slopes and ridges (Holland 1986). Approximately 11.5 acres of granitic chamise chaparral is located within the Boulder Brush Corridor. The majority of the Campo Corridor is covered by this vegetation community, with approximately 458.87 acres present.

Granitic Northern Mixed Chaparral (37131)

Granitic northern mixed chaparral is similar to northern mixed chaparral but with granitic soils. Granitic northern mixed chaparral contains broad-leaved sclerophyll shrubs, from 6.5 to 13 feet tall, with little to no understory vegetation (Oberbauer et al. 2008). Granitic northern mixed chaparral forms on granitic soils on dry, rocky, often steep slopes. The shrubs form a dense layer, are typically deep-rooted, and are adapted to repeated fires, to which many species respond by stump sprouting. Granitic northern mixed chaparral is the most dominant vegetation community within the Boulder Brush Corridor, with approximately 87.1 acres present. The Campo Corridor contains approximately 99.33 acres of granitic northern mixed chaparral.

Montane Buckwheat Scrub (37K00)

Montane buckwheat scrub is nearly a monoculture community of eastern Mojave buckwheat (*Eriogonum fasciculatum* var. *polifolium*) within San Diego County (Oberbauer et al. 2008). A major factor related to this community is that it is found at higher elevations and it is usually found on sandy soils and around mountain meadows. Montane buckwheat scrub is typically associated with several varieties of buckwheat. The Boulder Brush Corridor contains approximately 44.4 acres of montane buckwheat scrub and the Campo Corridor contains approximately 48.23 acres of this habitat.

Mulefat Scrub (63310)

Mulefat scrub is a depauperate, tall, herbaceous riparian scrub strongly dominated by mulefat. This early seral community is maintained by frequent flooding. Site factors include intermittent stream channels with fairly coarse substrate and moderate depth to the water table (Oberbauer et al. 2008). This community type is widely scattered along intermittent streams and near larger rivers. This habitat is not present within the Boulder Brush Corridor, and approximately 0.05 acres is present within the Campo Corridor.

Non-Native Grassland (42200)

Non-native grassland consist of dense to sparse cover of annual grasses with flowering culms between 0.5 to 3 feet in height (Oberbauer et al. 2008). Non-native grassland generally occurs on fine-textured loam or clay soils that are moist or even waterlogged during the winter rainy season and very dry during the summer and fall. This habitat is not present within the Boulder Brush Corridor. The Campo Corridor contains approximately 24.79 acres of non-native grassland.

Red Shank Chaparral (37300)

Red shank chaparral is dominated by pure stands of redshank (*Adenostoma sparsifolium*) of at least 50% cover (Oberbauer et al. 2008). Red shank chaparral shrub layer is typically open, 6.5 to 13 feet in height, and confined to granitic soils. This vegetation community occurs on interior cismontane slopes between 300 and 6,000 feet with greater precipitation and colder winters. The Boulder Brush Corridor contains approximately 46.0 acres of red shank chaparral. The Campo Corridor contains approximately 39.07 acres of red shank chaparral.

Scrub Oak Chaparral (37900)

Scrub oak chaparral is a dense, evergreen chaparral up to 20 feet tall (Oberbauer et al. 2008). Scrub oak chaparral is dominated by scrub oak (*Quercus berberidifolia*) of at least 50% cover and usually occurs in small patches within a variety of other communities. This mesic community occurs at elevations up to 5,000 feet and recover from fire more quickly than other chaparrals. In San Diego

County, scrub oak chaparral occurs on north-facing or mesic slopes. Characteristic species include *Quercus* spp., Eastwood manzanita (*Arctostaphylos glandulosa*), *Ceanothus* spp., toyon (*Heteromeles arbutifolia*), and California buckthorn (*Frangula californica* ssp. *californica*). Scrub oak chaparral is not present within the Boulder Brush Corridor. The Campo Corridor contains approximately 19.21 acres of this habitat.

Semi-Desert Chaparral (37400)

Semi-desert chaparral contains 5- to 10-foot-tall sclerophylls in an open layer dominated by *Juniperus*, *Eriogonum*, and *Opuntia* (Oberbauer et al. 2008). Semi-desert chaparral occurs in dry, cold winters and dry, hot summers, and on rocky soils or recently burned sites. This vegetation community is less fire-prone than other chaparrals due to lower fuel loads. Semi-desert chaparral is found in San Diego County on high desert plateaus and escarpment of the Peninsular Range. The Boulder Brush Corridor contains approximately 42.7 acres of semi-desert chaparral. This habitat is not present within the Campo Corridor.

Southern Arroyo Willow Riparian Forest (61320)

Southern arroyo willow riparian forest is a winter-deciduous riparian forest dominated by broad-leafed trees and arroyo willow (*Salix lasiolepis*). Typically, it consists of a moderately tall, closed, or nearly closed canopy, with an understory of shrubby willows (Oberbauer et al. 2008). Southern arroyo willow riparian forest is characterized by the presence of several species besides arroyo willow. The Boulder Brush Corridor contains approximately 0.9 acres of southern arroyo willow riparian forest. This habitat is not present within the Campo Corridor.

Southern Coast Live Oak Riparian Forest (61310)

Southern coast live oak riparian forest is a dense riparian forest dominated by coast live oak, often with an herbaceous understory. This community occurs along the bottom or outer slopes of larger streams (Oberbauer et al. 2008). Areas mapped as oak riparian forest are dominated by coast live oak. The Boulder Brush Corridor does not contain this habitat, but approximately 0.85 acres of southern coast live oak riparian forest is present within the Campo Corridor.

Southern Willow Scrub (63320)

Southern willow scrub is a dense, broad-leafed, winter-deciduous riparian thicket dominated by several willow species (*Salix* spp.), with scattered emergent Fremont cottonwood (*Populus fremontii*) and California sycamore (*Platanus racemosa*). This community was formerly extensive along the major rivers of coastal Southern California, but now much reduced (Oberbauer et al. 2008). The Boulder Brush Corridor does not contain this habitat, but approximately 0.18 acres of southern willow scrub is present within the Campo Corridor.

Unvegetated Stream Channel (64200)

According to Oberbauer et al. (2008), non-vegetated floodplain or channel is the sandy, gravelly, or rocky fringe of waterways or flood channels that is unvegetated on a relatively permanent basis. Vegetation may be present but is usually less than 10% total cover and grows on the outer edge of the channel. Non-vegetated channels occur along Tule Creek and throughout portions of the Boulder Brush Corridor. Approximately 1.1 acres of unvegetated stream channel is located within the Boulder Brush Corridor, and approximately 1.46 acres is present within the Campo Corridor.

Upper Sonoran Subshrub Scrub (39000)

Upper Sonoran subshrub scrub is a short, open scrub community that is dominated by soft-wooded, summer-dormant, drought-tolerant shrubs (Oberbauer et al. 2008). This vegetation type occurs in patches on relatively level, seasonally dry areas with soils with insufficient water-holding capacity to maintain larger shrubs. The Boulder Brush Corridor does not contain this habitat. The Campo Corridor contains approximately 10.59 acres of this habitat.

Urban/Developed (12000)

Urban/developed refers to areas that have been constructed on or disturbed so severely that native vegetation is no longer supported. Developed land includes areas with permanent or semi-permanent structures, pavement or hardscape, landscaped areas, and areas with a large amount of debris or other materials (Oberbauer et al. 2008). The Boulder Brush Corridor contains approximately 0.2 acres of developed area located along Ribbonwood Road. The Campo Corridor contains approximately 3.32 acres of urban/developed area.

Valley Sacaton Grassland (42120)

Valley Sacaton grassland is a mid-height (3-foot) tussock-forming grassland dominated by alkali Sacaton (*Sporobolus airoides*) (Oberbauer et al. 2008). Soils associated with this vegetation community are generally fine textured, poorly drained, and usually alkaline soils. This habitat is not present within the Boulder Brush Corridor. The Campo Corridor contains approximately 0.22 acres of this habitat.

Wildflower Field (42300)

Wildflower fields consist of native herb dominated communities. Wildflower fields are noted for an obvious annual wildflower display. Dominance of flowers varies from year to year depending on rainfall patterns. Site factors include being associated with grasslands and oak woodlands. Within San Diego County, sandy soils are often present within these vegetation communities. Approximately 14.8 acres of wildflower field is located within the Boulder Brush Corridor. The Campo Corridor does not contain wildflower fields.

2.3.1.3 Flora

Boulder Brush Corridor

A total of 321 vascular plant species, consisting of 287 native species (89%), and 34 non-native species (11%), were recorded within the Boulder Brush Corridor during surveys completed in 2017 and 2018. Fifty-seven families are represented, with nearly half of species coming from the *Asteraceae*, *Boraginaceae*, *Poaceae*, *Polemoniaceae*, *Fabaceae*, and *Brassicaceae* families. Seven special-status plant species were observed within the Boulder Brush Corridor: Jacumba milk-vetch (*Astragalus douglasii* var. *perstrictus*), Tecate tarplant (*Deinandra floribunda*), sticky geraea (*Geraea viscida*), desert beauty (*Linanthus bellus*), southern jewelflower (*Streptanthus campestris*), and Colorado Desert larkspur (*Delphinium parishii* ssp. *subglobosum*).

Campo Corridor

Within the Campo Corridor, 119 vascular plant species, consisting of 96 native species (81%) and 23 non-native species (19%) were identified by Dudek biologists during surveys completed between 2017 and 2018. The rare plant surveys in 2010 and 2011 by AECOM conducted on an overlapping project site identified an additional 237 vascular plant species within the Campo Corridor, consisting of 218 native species and 19 non-native species. Fifty-nine families are represented within the Campo Corridor, with nearly half of the species coming from the *Asteraceae*, *Boraginaceae*, *Poaceae*, *Fabaceae*, and *Brassicaceae* families.

2.3.1.4 Fauna

Boulder Brush Corridor

There were 207 wildlife species observed within the Boulder Brush Corridor in 2017, 2018, and 2019 during Quino checkerspot butterfly surveys, bird count surveys, least Bell's vireo and southwestern willow flycatcher surveys, Peninsular bighorn sheep surveys, and habitat assessments for Hermes copper, Laguna Mountain skipper, and golden eagle. Of the total species observed, 27 of these are considered special status, one of which is a federally listed species. Due to the size of the Boulder Brush Corridor (approximately 320 acres), the amount of undeveloped land, and the number of native upland habitats present, species richness within the Boulder Brush Corridor is considered moderate based on assessment by qualified biologists. Species richness is generally increased with the presence of more habitat types and ecotones. The Boulder Brush Corridor is dominated by four habitat types: granitic northern mixed chaparral (39%), sagebrush scrub communities (14%), red shank chaparral (16%), and semi-desert chaparral (15%). Although species richness is moderate, the number of species and the wildlife population levels (i.e., number of individuals) is typical for undeveloped areas in this region, particularly those areas that support multiple upland habitat types.

Campo Corridor

There were 181 wildlife species observed within the Campo Corridor during surveys conducted by Dudek biologists between 2017 and 2019 during Quino checkerspot butterfly surveys, bird count surveys, and/or eagle surveys; and 2011–2012 bat surveys. There were 124 additional species observed within the Campo Corridor during the 2010 surveys conducted by AECOM. Of the 305 total species observed within the Campo Corridor, 83 were butterflies and moths, 16 were reptiles, 3 were amphibians, 171 were avian species, 16 were terrestrial mammal species, and 16 were bat species. One federally listed species, Quino checkerspot butterfly, was observed during 2010 USFWS protocol surveys. Due to the size of the Campo Corridor (approximately 2,200 acres), amount of undeveloped land, and the number of native upland habitats present, species richness in the Campo Corridor is considered moderate.

2.3.1.5 Special-Status Plant Species

Special status plant species are typically considered those species that have been accorded special recognition by federal, state, or local conservation agencies and organizations as endangered, threatened, rare, or otherwise of concern. Complete definitions of these special status categories are found in Section 4.5 of the Biological Resources Technical Report (Appendix D). Considering jurisdictional boundaries and associated applicable regulations, for the purpose of this analysis, special-status plant species is defined as federal, state, or local recognized sensitive plant species within the Boulder Brush Corridor, and federal recognized sensitive plant species within the Campo Corridor. As the Campo Corridor is not subject to local and state regulations, a discussion of local and state listed plant species is provided for the Campo Corridor for disclosure purposes only.

Dudek biologists conducted focused surveys for special-status plants in 2017 and again in 2018 within the Boulder Brush Corridor. In June 2019, due to changes in the Boulder Brush Facilities development footprint, 27.1 acres were added to the Bolder Brush Corridor. These areas consist of 12 extended polygons ranging from less than 0.01 acres to 4.6 acres. Although these areas generally support the same type of vegetation communities as previously analyzed, a total of 27.1 acres were not surveyed. Dudek conducted a potential to occur analysis for federal recognized special-status plants within the Campo Corridor. Based on the potential to occur analysis, no federal recognized sensitive plant species were identified or have a high potential to occur; thus, no special-status plant survey was completed within the Campo Corridor. A County and state-listed special-status plant potential to occur analysis was completed for the Campo Corridor for disclosure purposes, as explained above.

Boulder Brush Corridor

Special status plant species observed within the Boulder Brush Corridor include the following County List A–D species: Tecate tarplant (List A), Jacumba milk-vetch (List A), sticky geraea

(List B), desert beauty (List B), southern jewelflower (List A), and Colorado desert larkspur (List D) (Table 2.3-2, Special-Status Plant Species within the Boulder Brush Corridor). Additional plant species with a high potential to occur are listed in the Biological Resources Technical Report (Appendix D). County List A–D species that have been observed within the Boulder Brush Corridor are shown on Figure 2.3-1.

Campo Corridor

AECOM conducted rare plant surveys in areas that overlap the Campo Corridor for the previously proposed Shu'luuk Wind project (AECOM 2012). Special status plant species observed within the Campo Corridor for the Shu'luuk Wind project include the following County List A–D species: Tecate cypress (*Hesperocyparis forbesii*, List A), Jacumba milk-vetch (List A), sticky geraea (List B), southern jewelflower (List A), Payson's jewelflower (List D), Peninsular spineflower (*Chorizanthe leptotheca*, List D), Colorado desert larkspur (List D), pride-of-California (*Lathyrus splendens*, List D). In addition, Tecate tarplant (List A) and desert beauty (List B) have a high potential to occur, and are conservatively assumed to possibly be present within the Campo Corridor due to the presence of suitable habitat and recent identification within the adjacent Boulder Brush Corridor. Location information for the species observed during surveys in 2010 and 2011 is not available because AECOM did not map non-federally listed species (AECOM 2012).

County List A and B Species

Plants categorized as County List A species are plants that are rare, threatened, or endangered in California and elsewhere (County of San Diego 2010a). Plants categorized as County List B are rare, threatened, or endangered in California, but more common in other suitable areas (County of San Diego 2010a). County List A and B species that have been observed within the Boulder Brush Corridor and Campo Corridor are described below and shown on Figure 2.3-1 and the Figure 4-1 series of Appendix D for Boulder Brush Corridor and on Figure 2.3-2 and the Figure 4-2 series of Appendix D for Campo Corridor. For additional details, refer to the Biological Resources Technical Report (Appendix D).

Jacumba Milk-Vetch (List A)

Jacumba milk-vetch is a California Rare Plant Rank (CRPR) 1B.2 (CNPS 2018) and County List A species (County of San Diego 2010a). Jacumba milk-vetch is relatively common in upland habitats and roadsides in this region. The largest populations of Jacumba milk-vetch within the Boulder Brush Corridor occur within wildflower field, disturbed habitat, and coast live oak woodland. Within the Boulder Brush Corridor, numerous occurrences of Jacumba milk-vetch (approximately 255 individuals) were observed within disturbed areas scattered throughout various vegetation communities based on the survey conducted in 2018. Jacumba milk-vetch was

observed during surveys conducted in spring and fall 2010 and spring 2011 for the Shu'luuk Wind project (AECOM 2012), which is located in the same general area as the Campo Corridor.

Tecate Cypress (List A)

Tecate cypress is a CRPR 1B.1 (CNPS 2018) and County List A species (County of San Diego 2010a). This perennial evergreen tree occurs in closed-cone coniferous forest and chaparral communities with clay, gabbroic, or metavolcanic substrates at elevations of 206 to 4,920 feet amsl. It has been recorded in Orange, Riverside, and San Diego counties as well as Baja California, Mexico (CNPS 2018). This species was not located within the Boulder Brush Corridor. Tecate cypress was observed during surveys conducted in spring and fall 2010 and spring 2011 for the Shu'luuk Wind project (AECOM 2012), which is located in the same general area as the Campo Corridor.

Tecate Tarplant (List A)

Tecate tarplant is a CRPR List 1B.2 (CNPS 2018) and a County List A species (County of San Diego 2010a). Within the Boulder Brush Corridor, Tecate tarplant occurs only within the ephemeral drainages and in some instances at the top of the ephemeral drainage banks (where overbank flow would occur during heavy rain events). Within the Boulder Brush Corridor, approximately 3,059 individuals of Tecate tarplant were observed during surveys in 2018. Tecate tarplant occurs in the south central portion of the Boulder Brush Corridor. Although Tecate tarplant was not observed during focused surveys conducted for the Shu'luuk Wind project, it has a high potential to occur within the Campo Corridor since this species was observed in numerous washes in the Boulder Brush Corridor and suitable habitat occurs within the Reservation Boundary.

Sticky Geraea (List B)

Sticky geraea is a CRPR 2.3 (CNPS 2018) and a County List B species (County of San Diego 2010a). This species is relatively common within openings in upland habitats in this region based on the results of plant surveys in the region. Within the Boulder Brush Corridor, sticky geraea occurs within exposed sandy openings and Jacumba milk-vetch, white daisy tidytips, and desert beauty are associates. Sticky geraea is found throughout the Boulder Brush Corridor, but is most abundant within the central portion of the Boulder Brush Corridor within various chaparral, scrub, and disturbed habitats. The largest populations of sticky geraea within the Boulder Brush Corridor occur within red shank chaparral. Within the Boulder Brush Corridor approximately 673 individuals of sticky geraea were observed during surveys in 2018. Sticky geraea was observed during surveys conducted in spring and fall 2010 and spring 2011 for the Shu'luuk Wind project, which is located in the same general area as the Campo Corridor.

Desert Beauty (List B)

Desert beauty is a CRPR 2.3 (CNPS 2018) and a County List B species (County of San Diego 2010a). This species is relatively common within openings in upland habitats in this region based on the results of plant surveys in the region. Within the Boulder Brush Corridor, broad sandy openings within upland habitat are the typical habitat of desert beauty. Desert beauty is associated with sticky geraea and variable linanthus (*Leptosiphon parviflorus*). Disturbed soils lack desert beauty populations within the Boulder Brush Corridor. Desert beauty occurs more frequently within the central portion of the Boulder Brush Corridor within red shank chaparral, montane buckwheat scrub, and granitic northern mixed chaparral. The largest populations of desert beauty in the Boulder Brush Corridor occur within red shank chaparral. Within the Boulder Brush Corridor approximately 1,400 individuals of desert beauty were observed during surveys in 2018. Although desert beauty was not observed during focused surveys conducted for the Shu'luuk Wind project, it has a high potential to occur within the Campo Corridor since this species was observed throughout the Boulder Brush Corridor and suitable habitat occurs within the Campo Corridor.

Southern Jewelflower (List A)

Southern jewelflower is a CRPR 1B.3 (CNPS 2018) and a County List A species (County of San Diego 2010a). Within the Boulder Brush Corridor, shaded habitats are the typical habitat of southern jewelflower. Southern jewelflower occurs more frequently within the central portion and northern portions of the Boulder Brush Corridor, within red shank chaparral, granitic northern mixed chaparral, unvegetated stream channel, and disturbed habitat. The largest populations of southern jewelflower occur within redshank chaparral. Within the Boulder Brush Corridor approximately 30 individuals of southern jewelflower were observed during surveys in 2018. Southern jewelflower was observed during surveys conducted in spring and fall 2010 and spring 2011 for the Shu'luuk Wind project, which is located in the same general area as the Campo Corridor.

County List C and D Species

Plants categorized as County List C species are plants that may be rare but more information is needed to determine their true rarity status. Plants categorized as County List D are of limited distribution and are uncommon, but are not presently listed as rare or endangered (County of San Diego 2010a). Two County List D species were observed within the Boulder Brush Corridor. Four County List D species were observed during surveys conducted in spring and fall 2010 and spring 2011 for the Shu'luuk Wind project (in the same general area as the Campo Corridor) and are described below.

Colorado Desert Larkspur (List D)

Colorado Desert larkspur is a CRPR 4.3 (CNPS 2018) and a County List D species (County of San Diego 2010a). Within the Boulder Brush Corridor, Colorado Desert larkspur is associated with buckwheat species and Pectocarya plants. Colorado Desert larkspur occurs more frequently within the southwestern sections of the Boulder Brush Corridor, within various scrub, chaparral, oak woodland, and disturbed habitats. The largest populations of Colorado Desert larkspur were within montane buckwheat scrub. Within the Boulder Brush Corridor there were approximately 82 individuals of southern Colorado Desert larkspur based on surveys conducted in 2018. Colorado Desert larkspur was observed during surveys conducted in spring and fall 2010 and spring 2011 for the Shu'luuk Wind project, which is located in the same general area as the Campo Corridor.

Payson's Jewelflower (List D)

Payson's jewelflower is a CRPR 4.2 (CNPS 2018) and a County List D species (County of San Diego 2010a). Payson's jewelflower has high potential to occur within the Boulder Brush Corridor based on the habitat present, site location, typical distribution, and the presence of associate species (desert apricot [*Prunus fremontii*] and strigose bird's-foot trefoil [*Acmispon strigosus*]) of Payson's jewelflower. Payson's jewelflower was observed north of the Boulder Brush Corridor during 2019 Quino checkerspot butterfly surveys. It was not observed within the Boulder Brush Corridor during 2017 or 2018 rare plant surveys, despite being in full bloom at the start of February 2018 within nearby Campo, California (based on personal communication with botanists [Mulligan 2018]). Payson's jewelflower was observed during surveys conducted in spring and fall 2010 and spring 2011 for the Shu'luuk Wind project, which is located in the same general area as the Campo Corridor.

Peninsular Spineflower (List D)

Peninsular spineflower is a CRPR 4.2 (CNPS 2018) and a County List D species (County of San Diego 2010a). A member of the buckwheat (Polygonaceae) family, this annual herb blooms from May through August in chaparral, coastal scrub, and lower montane coniferous forest vegetation communities. Peninsular spineflower has been documented from Otay east to Campo and north to Palomar Mountain area, and has been recorded in Riverside, San Bernardino, and San Diego Counties. This species was not located within the Boulder Brush Corridor. Peninsular spineflower was observed during surveys conducted in spring and fall 2010 and spring 2011 for the Shu'luuk Wind project, which is located in the same general area as the Campo Corridor.

Pride-of-California (List D)

Pride-of-California is a CRPR 4.3 (CNPS 2018) and a County List D species (County of San Diego 2010a). A member of the legume family (Fabaceae), this climbing perennial herb blooms from

March through June in chaparral habitats, typically those dominated by chamise (Reiser 2001; CNPS 2018). This species is only known from San Diego County and Baja California, Mexico (CNPS 2018). This climbing species with tendrils is generally found growing through woody shrubs. Pride-of-California has been documented from Jamul to Boulevard, California in southern San Diego County. Pride-of-California was observed within the Boulder Brush Corridor, and during surveys conducted in spring and fall 2010 and spring 2011 for the Shu'luuk Wind project, which is located in the same general area as the Campo Corridor.

2.3.1.6 Special-Status Wildlife Species

Special-status species for the purpose of this analysis is defined as federal, state, or local recognized sensitive species within the Boulder Brush Corridor and federal recognized sensitive species within the Campo Corridor. This includes County, California Department of Fish and Wildlife (CDFW), and USFWS recognized sensitive wildlife species within Boulder Brush Corridor and USFWS recognized sensitive wildlife species within the Campo Corridor. A discussion of local and state recognized sensitive wildlife species located within the Campo Corridor is provided for disclosure purposes only.

The County divides sensitive wildlife species into County Group 1 and County Group 2 based on the species' rarity and known threats (County of San Diego 2010a). County Group 1 species include those that have a high level of sensitivity, are listed as threatened or endangered, or have a natural history requirement that increases their sensitivity (County of San Diego 2010a). County Group 2 species include those that are becoming less common, although not so rare that extinction is imminent without immediate action. CDFW assigns status to species whose population levels are declining, have limited ranges, and/or are vulnerable to extinction due to continuing threats (CDFW 2018a). In addition, Fully Protected species are protected by CDFW, and Watch List (WL) species are candidates for higher sensitivity status. The USFWS provides the Bird of Conservation Concern (BCC) status to migratory and non-migratory bird species that adhere to the 1988 amendment to the Fish and Wildlife Conservation Act that mandates USFWS to "identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973" (USFWS 2008). As noted previously, the Campo Corridor is not subject to local and state regulations and is only subject to federal regulations. Nonetheless, analysis under the County Guidelines for special-status wildlife species have been presented for both the Boulder Brush Corridor and Campo Corridor for full disclosure under CEQA.

Boulder Brush Corridor

Dudek conducted the following surveys on, or within portions of, the Boulder Brush Corridor[1] in 2011, 2012, 2017, 2018, and/or 2019: Quino checkerspot butterfly surveys, bird count surveys, least Bell's vireo and southwestern willow flycatcher surveys, Peninsular bighorn sheep surveys, and habitat assessments for Hermes copper, Laguna Mountain skipper, and golden eagle. The following special-status wildlife species were observed within or immediately adjacent to the Boulder Brush Corridor within the Boulder Brush Boundary: turkey vulture (*Cathartes aura*), loggerhead shrike (*Lanius ludovicianus*), golden eagle, merlin, California horned lark (*Eremophila alpestris actia*), San Diego black-tailed jackrabbit, Cooper's hawk, northern harrier, sharp-shinned hawk (*Accipiter striatus*), red-shouldered hawk, western bluebird (*Sialia mexicana*), yellow warbler, barn owl (*Tyto alba*), Bell's sage sparrow (*Artemisiospiza belli belli*), mule deer (*Odocoileus hemionus*), San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*), Blainville's horned lizard (*Phrynosoma blainvillii*), and Quino checkerspot butterfly. Only one of the observed special-status wildlife species, Quino checkerspot butterfly, is federally listed. No state-listed species were observed or have potential to occur within the Boulder Brush Corridor. Special-status wildlife species with a high potential to occur within the Boulder Brush Corridor include Coronado skink (*Plestiodon skiltonianus interparietalis*), coast patch-nosed snake (*Salvadora hexalepis virgultea*), San Diego ringneck snake (*Diadophis punctatus similis*), rosy boa (*Lichanura trivirgata*), San Diego banded gecko (*Coleonyx variegatus abbotti*), San Diego desert woodrat (*Neotoma lepida intermedia*),[2] cougar (*Puma concolor*), western small-footed myotis (*Myotis ciliolabrum*), and Peninsular metalmark (*Apodemia virgulti peninsularis*). Refer to Table 2.3-3, Group 1 and/or California Department of Fish and Wildlife SSC Wildlife Species Present within the Boulder Brush Corridor or with High Potential to Occur, and Figure 2.3-1 and the Figure 4-1 series of Appendix D.

Campo Corridor

Dudek biologists conducted the following surveys within the Campo Corridor in 2017 and 2018: Quino checkerspot butterfly surveys, bird count surveys, eagle surveys, and 2011–2012 bat surveys. Based on USFWS critical habitat and occurrence data (USFWS 2018) and CNDDB occurrence data (CDFW 2018a, 2018b, 2018c), seven federally listed wildlife species were found to have some potential to occur within the Campo Corridor and vicinity based on habitat or records from

[1] There are 27.1 acres added to the Boulder Brush Boundary in June 2019 that were not surveyed. These areas consist of 12 extended polygons ranging from less than 0.01 acres to 4.6 acres. However, these areas support the same type of vegetation communities and species' habitat as previously analyzed. No Quino checkerspot butterfly individuals or host plants were observed near this area therefore it is not expected to support Quino checkerspot butterfly. Of this 27.1 acres, only 2.6 acres are located within the Boulder Brush Facilities.

[2] The San Diego Mammal Atlas (Tremor et al. 2017) describes this species as *N. bryanti*, a distinct species from *N. lepida*, with *N. bryanti* occurring in Baja and Southern California west of Imperial and Coachella Valley. However, wildlife agencies still refer to this species as *N. l. intermedia*; therefore, this name is used for this analysis.

a nine-quadrangle search: arroyo toad (*Anaxyrus californicus*), California condor, southwestern willow flycatcher, least Bell's vireo, Peninsular bighorn sheep, Quino checkerspot butterfly, and Laguna Mountains skipper. However only one of the seven species, Quino checkerspot butterfly, is known to occur or has moderate or better potential for occurring within the Campo Corridor. While not listed, golden eagle is federally protected and has been observed flying over the Campo Corridor. Thus, Quino checkerspot butterfly and golden eagle are discussed herein as well as in the EIS.

For disclosure purposes, local and state special-status wildlife species are also identified herein for the Campo Corridor. The following special-status wildlife species were observed within the Reservation Boundary: barn owl, Blainville's horned lizard, California horned lark, Cooper's hawk, cougar (*Puma concolor*), golden eagle, loggerhead shrike, long-eared owl (*Asio otus*), merlin, mule deer, northern harrier, Peninsular metalmark, prairie falcon (*Falco mexicanus*), quino checkerspot butterfly, red-shouldered hawk, San Diegan tiger whiptail, San Diego black-tailed jackrabbit, San Diego desert woodrat, turkey vulture, western bluebird, western spadefoot (*Spea hammondii*), and yellow warbler. The following special-status wildlife species also have a high potential to occur within the Campo Corridor based on location and habitat present: Bell's sage sparrow, coast patch-nosed snake, Coronado skink, rosy boa, San Diego banded gecko, San Diego ringneck snake, and western small-footed myotis.

County Group 1 Species and/or State Species of Special Concern (SSC)

San Diegan Tiger Whiptail, SSC/County Group 2

San Diegan tiger whiptail is a CDFW SSC and County Group 2 species. It is found in coastal Southern California, in a variety of habitats, primarily in areas where plants are sparse and there are open areas for running. San Diegan tiger whiptail was observed several times during surveys within both the Boulder Brush Corridor and Campo Corridor.

San Diego Banded Gecko, SSC/County Group 1

San Diego banded gecko is an SSC and County Group 1 species. San Diego banded gecko is only recorded in Riverside, San Diego, and San Bernardino Counties in California. This species has high potential to occur within chaparral, and sage scrub habitats within both Boulder Brush Corridor and Campo Corridor.

Blainville's Horned Lizard, SSC/County Group 2

Blainville's horned lizard (previously coast horned lizard) is an SSC, and County Group 2 species. It is found from the Sierra Nevada foothills and central California to coastal Southern California. Blainville's horned lizard can be locally abundant in areas where it occurs, with densities of near 20 adults per acre. Blainville's horned lizard was observed numerous times during surveys within both Boulder Brush Corridor and Campo Corridor.

Coast Patch-Nosed Snake, SSC/Group 2

Coast patch-nosed snake is an SSC and County Group 2 species. This species occurs in California from the northern Carrizo Plains along the coast toward coastal northern Baja California. The Boulder Brush Corridor is within the species' range and suitable chaparral and sage scrub habitats exist within the Boulder Brush Corridor. This species has high potential to occur within both Boulder Brush Corridor and Campo Corridor.

Western spadefoot, SSC/County Group 2

Western spadefoot is an SSC and County Group 2 species. It is endemic to California and northern Baja California, Mexico. Although this species primarily occurs in lowlands, it also occupies foothill and mountain habitats. Western spadefoot is almost completely terrestrial, but it does require temporary pools and drainages to breed. The species is most common in grasslands with vernal pools or mixed grassland/coastal sage scrub areas. This species was recorded within the Campo Corridor and breeding habitat exists within the Campo Corridor. This species does not have potential to occur within the Boulder Brush Corridor.

Cooper's Hawk, State Watch List (WL)/County Group 1

Cooper's hawk is a WL, and County Group 1 species. It is found throughout California in wooded areas near water. Cooper's hawk was observed foraging and nesting within both the Boulder Brush Corridor and Campo Corridor during surveys.

Sharp-Shinned Hawk, WL/County Group 1

Sharp-shinned hawk is a WL and County Group 1 species. This species is a common migrant and winter resident throughout California, and an uncommon permanent resident and breeder in mid-elevation habitats. This species prefers riparian habitats, and roosts in intermediate- to high-canopy forest, often to forage in openings at edges of woodlands. Sharp-shinned hawk was observed flying over the Boulder Brush Corridor and Campo Corridor.

Golden Eagle, Federal Birds of Conservation Concern BCC/Fully Protected, WL/County Group 1

Golden eagle is a BCC, WL, fully protected, and County Group 1 species. In addition, golden eagle is protected under the federal Bald and Golden Eagle Protection Act. Golden eagle is a year-round, diurnally active species that is a permanent resident and migrant throughout California. However, golden eagle is more common in northeast California and the Coast Ranges than in Southern California and the deserts. This species nests on cliffs, rock outcrops, large trees, and artificial structures such as electrical transmission towers, generally near open habitats used for

foraging. Some pairs use the same nest each year, but others use alternative nests more regularly. In California, golden eagle breeds January through August. There are no suitable large trees or cliffs present for nesting; therefore, this species is not expected to nest within the Boulder Brush Corridor or Campo Corridor. One golden eagle was observed flying adjacent to the Boulder Brush Corridor area during the focused Quino checkerspot butterfly surveys in April 2018. Nine golden eagles were observed flying over the Reservation Boundary during the 2017 through 2019 surveys. In total, as of September 2019, eagles were observed flying over the Reservation Boundary for approximately 15 of more than 131,600 minutes during the 2017–2019 all-day eagle surveys and avian point-count surveys.

Although there are data points of golden eagle within a 10-mile buffer and a few brief incursions over the Boulder Brush Boundary (Appendix D), these are very minor when compared to eagle overall use areas and geographic range. The Boulder Brush Boundary appears to be at the very fringe of individual eagle territories or use areas, and likely mostly represent brief exploratory searches.

Bell's Sage Sparrow, BCC/WL/County Group 1

Bell's sage sparrow is a BCC, WL, and County Group 1 species. The recently designated Bell's sparrow (*Artemisiospiza belli*) consists of *A. b. belli* and *A. b. canescens*, both formerly considered subspecies of the sage sparrow (*Amphispiza belli*). This species occurs in chaparral and coastal scrub communities along the Coast Ranges of central California and in the Transverse Ranges of Southern California. Bell's sage sparrow was observed adjacent to the Boulder Brush Corridor during wildlife surveys in 2019. This species has high potential to occur within the Campo Corridor due to the suitable habitat present, which includes chaparral and sage scrub.

Long-eared owl, SSC/County Group 1

Long-eared owl is an SSC and County Group 1 species. It is an uncommon year-round resident throughout most of the state, with the exception of the Central Valley and Southern California desert regions, where is it generally a winter visitor. This species was documented nesting within the Campo Corridor in 2011 (AECOM 2012). There is potential for this species to nest or winter in the oak woodland habitat on Campo Corridor. Long-eared owl has moderate potential to winter in the oak woodland habitat within the Boulder Brush Corridor.

Red-Shouldered Hawk, County Group 1

Red-shouldered hawk is not considered special status by any state or federal agencies; however, it is a County Group 1 species. Red-shouldered hawk inhabits a broad range of North American forests, but favors mature, mixed deciduous–coniferous woodlands. This species nests in riparian habitats near permanent water and forages along edges of wet meadows, swamps, and emergent wetlands. Red-shouldered hawks were observed adjacent to the Boulder Brush Corridor during

surveys and have potential to nest in woodland habitat on Boulder Brush Corridor. Red-shouldered hawks were observed nesting within the Reservation Boundary (AECOM 2012) and observed during the 2018 and 2019 surveys of the Campo Corridor.

Turkey Vulture, County Group 1

Turkey vulture is not considered special status by any state or federal agencies; however, it is considered a County Group 1 species. In California, it is common during the nesting season and is a year-round resident west of the Sierra Nevada, especially in coastal areas. Turkey vultures use a variety of habitats while foraging but prefer open areas. Nest locations tend to be located in a crevice among granite boulders.

Turkey vultures were observed foraging throughout both the Boulder Brush Corridor and Campo Corridor during biological surveys, but the observations were not mapped. The Boulder Brush Corridor does not support suitable cliffs for nesting, and no nests were observed. However, Turkey vulture was documented nesting within the Campo Corridor (AECOM 2012). Appropriate foraging habitat occurs throughout both the Boulder Brush Corridor and Campo Corridor.

Northern Harrier, SSC/County Group 1

Northern harrier is an SSC, and County Group 1 species. Northern harriers use a wide variety of open habitats in California, such as grasslands and agricultural areas. This species can also forage over coastal sage scrub or other open scrub communities. Nesting areas are associated with marshes, pastures, grasslands, prairies, croplands, desert shrub-steppe, and riparian woodland. Northern harrier was observed in 2018 adjacent to the Boulder Brush Corridor within the Boulder Brush Boundary and also observed within the Campo Corridor. Although there is some potential nesting habitat in the meadow habitat along Tule Creek, this species has not been documented nesting in the region.

Prairie Falcon, BCC/WL, County Group 1

Prairie falcon is a USFWS BCC, WL, and County Group 1 species. The prairie falcon is a permanent resident found throughout most of California. It prefers chaparral, desert grasslands, and creosote bush habitats for foraging, and nests on cliffs or bluffs near these open habitats. This species has been observed within the Campo Corridor during 2010 and 2011 surveys (AECOM 2012), and 2018 surveys. In addition, within the Campo Corridor it has a potential to nest in the grassland and some of the emergent wetlands as well as forage on site in the grassland and open scrub habitats. This species was not observed and does not have a high potential to occur within the Boulder Brush Corridor.

Loggerhead Shrike, BCC/SSC/County Group 1

Loggerhead shrike is a BCC, SSC, and County Group 1 species. It is found in lowlands and foothills throughout California, and it remains in the southern portion of the state year-round. Preferred habitats for loggerhead shrike are open areas and along the edge of riparian and woodland areas. Loggerhead shrike builds nests in stable shrubs or trees requiring dense foliage for well-concealed nests. Loggerhead shrike was observed adjacent to the Boulder Brush Corridor within the Boulder Brush Boundary during wildlife surveys and likely nests within the Boulder Brush Corridor. Loggerhead shrike was observed and likely nests within the Campo Corridor.

Yellow Warbler, BCC/SSC/County Group 2

Yellow warbler is a BCC, SSC, and County Group 2 species. Yellow warbler occurs in medium-density woodlands and forests with heavy brush understory, and migrates to sparse to dense woodland and forest habitats. This species breeds along the coast of California. Yellow warbler was observed adjacent to the Boulder Brush Corridor within the Boulder Brush Boundary. Yellow warbler was observed within the Reservation Boundary (AECOM 2012) and could nest in the riparian habitat within the Campo Corridor.

San Diego Black-Tailed Jackrabbit, SSC/County Group 2

San Diego black-tailed jackrabbit is an SSC, and County Group 2 species. It is confined to coastal Southern California, with marginal eastern records. It is found in many diverse habitats, but primarily in arid regions supporting short-grass habitats such as grasslands or overgrazed agricultural areas. This species was regularly observed throughout both the Campo Corridor and Boulder Brush Corridor.

San Diego Desert Woodrat, SSC/County Group 2

San Diego desert woodrat is an SSC and County Group 2 species. This species is found in coastal Southern California into Baja California, with eastern marginal reports including Julian. Desert woodrat is found in a variety of shrub and desert habitats, and are primarily associated with rock outcroppings, boulders, cacti, and areas of dense undergrowth. San Diego desert woodrat middens were observed during biological surveys on both the Campo Corridor and Boulder Brush Corridor. Within Boulder Brush Corridor, suitable habitat includes chaparral. There is suitable desert scrub, chaparral, and rocky areas present within the Campo Corridor.

Peninsular Metalmark, County Group 1

Peninsular metalmark is a County Group 1 species. This species is common within mountain meadows usually near the edges of woods, Great Basin sagebrush, and montane buckwheat scrub (Faulkner and Klein 2012). Peninsular metalmark is found in the San Jacinto, Palomar, and Laguna

Mountains (Butterflies of North America 2018; Faulkner and Klein 2012) and in areas where its host plant, *Eriogonum wrightii* ssp. *membranaceum*, occurs.

Peninsular metalmark was potentially observed within both the Boulder Brush Corridor and Campo Corridor. Behr's metalmark (*Apodemia virgulti*), which is very similar in appearance to Peninsular metalmark, was observed frequently in both the Boulder Brush Corridor and Campo Corridor. The host plant occurs within both the Boulder Brush Corridor and Campo Corridor and therefore, this species could have been observed, though unknown or not discernible to species level, during surveys.

Quino Checkerspot Butterfly, Federal Endangered (FE), County Group 1

Quino checkerspot butterfly was listed as endangered on January 16, 1997 (62 FR 2313–2322), and a recovery plan and critical habitat has been designated for this species. In accordance with the federal Endangered Species Act (ESA) Section 4(b)(2); Executive Order (EO) 13175, Consultation and Coordination with Indian Tribal Governments; and Secretarial Order 3206, USFWS has excluded the Reservation from critical habitat designation for Quino checkerspot butterfly. Critical habitat designated for Quino checkerspot butterfly borders the Reservation to the west and south (Figure 2-1, USFWS Critical Habitat, of Appendix D).

This species is found only in western Riverside County, southern San Diego County, and northern Baja California, Mexico (USFWS 2003). This species is found on sparsely vegetated hilltops, on ridgelines, and occasionally on rocky outcrops in open chaparral and coastal sage scrub habitat (typically at less than 3,000 feet above mean sea level). This species requires host plants within these vegetation communities for feeding and reproduction. The primary larval host plant is dotseed plantain; however, several other species have been documented as important larval host plants, including desert plantain, sometimes called woolly plantain (*Plantago patagonica*); stiffbranch bird's beak (*Cordylanthus rigidus*); Coulter's snapdragon (*Antirrhinum coulterianum*); owl's clover (*Castilleja exserta*); and Chinese houses (*Collinsia* spp.) (USFWS 2003).

Twenty-seven Quino observations were documented during 2010 USFWS protocol surveys: 19 Quino checkerspot butterflies within the southeastern portion of the Campo Corridor, and 8 outside the Campo Corridor on the Reservation. Quino observations were concentrated in the southern portion of the 2010 AECOM study area (AECOM 2012). In 2018, updated surveys were conducted for the Campo Corridor. No occurrences of Quino were recorded on the Reservation or within the Campo Corridor during the 2018 focused surveys. No Quino individuals were observed within the Boulder Brush Corridor during surveys in 2011 and 2018.

While Quino was not observed in the 2018 survey, low rainfall and other factors could have resulted in larva extending diapause and delaying emergence. Thus, habitat modeling was conducted for the Campo Corridor to determine the potential for occupied habitat based on previous observations, 2010 host plants, and suitable hilltops and ridgeline habitats. The 2010 and

2018 Quino checkerspot butterfly exclusion areas were removed from the model since those areas were determined to be unsuitable for this species. This model resulted in approximately 674.1 acres of potentially occupied habitat mapped within the Campo Corridor, a portion of which was considered occupied based on the 2010 Quino checkerspot butterfly observations. Focused Quino checkerspot butterfly surveys were not conducted in 2019 within the Campo Corridor.

A total of five Quino checkerspot butterfly individuals were observed during the 2019 focused surveys within the majority of the Boulder Brush Corridor by Erin Bergman (a Dudek biologist) on April 10, 2019 (Figure 2.3-1). These Quino checkerspot butterfly individuals were only observed during this one survey week on this one day. No other Quino checkerspot butterfly individuals were observed during the protocol surveys. Three Quino larval host plants were recorded during 2019 focused surveys: Coulter's snapdragon, Chinese houses (*Collinsia concolor*), and stiffbranch bird's beak. Habitat modeling was conducted for the Boulder Brush Corridor to determine the potential for occupied habitat based on the 2019 observation, host plants, and suitable hilltops and ridgeline habitats. This model resulted in approximately 121.8 acres of potentially occupied habitat mapped within the Boulder Brush Corridor, a portion of which was considered occupied in 2019 based on the Quino checkerspot butterfly observation on April 10, 2019. Approximately 27.1 acres were added to the Boulder Brush Corridor in June 2019 as a result of changes to the proposed paved access road alignment and other infrastructure, of which approximately 2.6 acres would be directly impacted by the Boulder Brush Facilities. The additional 27.1 acres within the Boulder Brush Corridor were not surveyed. These areas consist of 12 extended polygons ranging from less than 0.01 acres to 4.6 acres.

County Group 2 Species

Coronado Skink, WL/County Group 2

Coronado skink is a WL and County Group 2 species. This species is common within grassland, woodlands, pine forests, chaparral, especially open sunny areas (e.g., clearings, edges of creeks), and rocky areas near streams with lots of vegetation. Coronado skink is found in inland Southern California south through the north Pacific coast region of northern Baja California. Although Coronado skink was not detected during surveys within either Campo Corridor or Boulder Brush Corridor, this species has high potential to occur within both the Boulder Brush Corridor and Campo Corridor due to the presence of suitable chaparral and coast live oak woodland habitat.

San Diego Ringneck Snake, County Group 2

San Diego ringneck snake is a County Group 2 species. San Diego ringneck snake is found in San Diego County along the coast and into the Peninsular range, and in southwestern Riverside County. Suitable habitat includes moist chaparral, sage scrub, and coast live oak woodland. This species has high potential to occur within both the Boulder Brush Corridor and Campo Corridor.

Rosy Boa, County Group 2

Rosy boa is not considered special status by any state or federal agencies; however, it is a County Group 2 species. Rosy boa is found in Southern California, except around the Salton Sea and the western and southern portions of Imperial County. Rosy boa inhabits rocky shrubland and desert habitats, and is attracted to areas with water. This species has high potential to occur within both the Boulder Brush Corridor and Campo Corridor, including within suitable chaparral, sage scrub, and coast live oak woodland habitats.

California Horned Lark, WL/County Group 2

California horned lark is a WL and County Group 2 species. California horned lark is a permanent resident found throughout much of the southern half of California along the coastal areas. It is found from grasslands along the coast and deserts near sea level to alpine dwarf-shrub habitat above the tree line. This species prefers open habitats, grassland, rangeland, shortgrass prairie, montane meadows, coastal plains, and fallow grain fields, and it nests on the ground in a hollow scrape. This species was observed in the open scrub and grassland areas within the Campo Corridor, but its specific location was not mapped. California horned lark was not observed within the Boulder Brush Corridor.

Merlin, WL/County Group 2

Merlin is a WL and County Group 2 species. Merlin typically only occurs in San Diego County during October to March during migration. It is often seen in grassland, though it occurs occasionally in any habitat except dense woodland. One merlin was observed in October 2018 within the Boulder Brush Corridor. Merlin was observed within the Campo Corridor during 2010 and 2011 surveys (AECOM 2012), as well as during the October and November 2018 surveys. Considering when it was observed, Merlin is expected to use the Boulder Brush Corridor for foraging but not for nesting.

Barn Owl, County Group 2

Barn owl is a not considered special status by any state or federal agencies; however, it is a County Group 2 species. It is common throughout its range throughout most continents. In San Diego County, it is an uncommon permanent resident and occurs in urban settings, roosting in buildings, palm leaves, and nest boxes. Habitat types that are commonly used include open habitats, but this species does not have an affinity for a certain habitat and instead is typically located where roosting and foraging (for rodents) are available. This species was observed during the 2018/2019 surveys within the oak woodland within the Boulder Brush Corridor, but its specific location was not mapped. This species was also observed nesting within the Reservation Boundary outside of the Campo Corridor (AECOM 2012) and observed during 2017/2018 surveys of the Campo Corridor, but its specific location was not mapped.

Western Bluebird, County Group 2

Western bluebird is a County Group 2 species. It is a common resident bird in San Diego County, where it prefers montane coniferous and oak woodlands. Western bluebirds were observed during surveys in the oak woodland adjacent to the Boulder Brush Corridor and within the Campo Corridor, but its specific locations were not mapped as it is expected to utilize all oak woodlands.

Mule Deer, County Group 2

Mule deer is a County Group 2 species. It is a common species with a widespread distribution throughout the western United States and Canada, and south into Mexico. Throughout its range, mule deer uses coniferous and deciduous forests, riparian habitats, desert shrub, coastal scrub, chaparral, and grasslands with shrubs. Mule deer or their sign were observed during biological surveys within both the Boulder Brush Corridor and Campo Corridor, but the locations were not mapped due to the high mobility of this species. Mule deer were flushed from upland habitats several times during surveys and are likely to use both the Boulder Brush Corridor and Campo Corridor.

Cougar, County Group 2

Cougar is a County Group 2 species and is a Specially Protected Mammal under California Fish and Game Code Section 4800. Its range throughout California extends from deserts to humid forests in the Coast Ranges, and is abundant where Mule Deer, its prey, are present. Cougar prefers woodland vegetation, and uses caves and other natural cavities for cover and breeding. Within the Boulder Brush Corridor and Campo Corridor, suitable habitat includes chaparral, sage scrub, southern arroyo willow riparian forest, and coast live oak woodland. This species has high potential to occur within the Boulder Brush Corridor, as it was detected within the Reservation Boundary (AECOM 2012) southeast of the Campo Corridor.

Western Small-Footed Myotis, Group 2

Western small-footed myotis is a County Group 2 species. Western small-footed myotis occurs in much of California in arid uplands. This species occurs in arid wooded and brushy uplands near water and in open stands in forests and woodlands. Western small-footed myotis is considered locally common. This species has high potential to roost within both the Campo Corridor and Boulder Brush Corridor. Suitable habitat includes oak and riparian woodlands.

2.3.1.7 Wetlands/Jurisdictional Waters

A formal jurisdictional delineation was conducted in 2018 and 2019 for the Boulder Brush Corridor and in 2017 and 2018 for the Campo Corridor. The jurisdictional areas identified within the Boulder Brush Corridor consist of tributaries to Tule Creek, Tule Creek itself, and tributaries to Carrizo Creek. The majority of these small tributary ephemeral channels convey slope runoff

towards Tule Creek, but do not convey surface flow directly into Tule Creek. Instead, they percolate into uplands with a potential subsurface connection to downstream receiving waters. The jurisdictional areas within the Campo Corridor includes tributaries to Campo Creek and Tule Creek. These jurisdictional areas are discussed in more detail below.

Boulder Brush Corridor

Waters of the United States

Tule Creek is on the southern portion of the Boulder Brush Corridor. The majority of the Boulder Brush Corridor is characterized by small ephemeral channels, draining runoff, and surface flow from the hillslopes and roads that are tributary to Tule Creek. Tule Creek has a wide floodplain with occasional low-flow channels where it receives surface flow, but the majority of the floodplain appears to be supported by subsurface flow, indicated by the patches of riparian herbs, shrubs, and trees within portions of the floodplain. There are sections within the Boulder Brush Corridor where data was collected within Tule Creek that were dominated by upland species, such as big sagebrush scrub, tall tumble mustard (*Sisymbrium altissimum*), and cheat grass. The northern portion of the Boulder Brush Corridor (near the proposed switchyard) includes ephemeral non-wetlands waters that are tributary to Carrizo Creek. During site visits, it was observed that these ephemeral channels have been directly impacted by off-road vehicle use (predominantly motorized dirt bikes). The disturbed areas created by these activities often bisect the channel or the length of the channel has been impacted by dirt bike use.

Tule Creek receives surface and subsurface flows from headwaters originating in the Laguna Mountains northwest of the Boulder Brush Corridor. It continues draining in a downward gradient in an east and southeast orientation into Tule Lake, located approximately 4.5 miles southeast of the Boulder Brush Corridor. Water then flows into Tule Canyon, which eventually outlets into Carrizo Creek where it drains north/northeast. Carrizo Creek turns into Carrizo Wash and connects to San Felipe Wash and eventually drains into the Salton Sea to form a significant nexus to a traditional navigable water. Therefore, the waters within the Boulder Brush Corridor are considered subject to regulation by ACOE. The Boulder Brush Corridor includes 1.00 acres of non-wetland jurisdictional waters of the United States and state (Figure 2.3-1 and the Figure 4-1 series of Appendix D). Refer to Table 2.3-4, Jurisdictional Wetlands and Waters, for the summary of jurisdictional habitat acreages and linear feet.

Streambed or Riparian Habitat of the State

CDFW regulates streambeds and riparian vegetation associated with streambeds. All of the non-1.0 acres of wetland waters of the United States are also streambeds regulated by CDFW. Additionally, 4.03 acres of CDFW riparian habitat is associated with Tule Creek within the Boulder Brush Corridor.

Non-wetland waters are also regulated under Section 401 of the Clean Water Act, and, as such, any impacts to these features require a Section 401 Certification from the Regional Water Quality Control Board (RWQCB).

County Resource Protection Ordinance Wetlands

Resource Protection Ordinance (RPO) wetlands have been identified at three locations associated with Tule Creek within the Boulder Brush Corridor (Figure 2.3-1 and the Figure 4-1 series of Appendix D). These three locations the County RPO definition of wetlands. The Boulder Brush Corridor is subject to the County RPO, and thus the following RPO information is provided for Boulder Brush Corridor only.

The RPO wetland located in the central portion of the Boulder Brush Corridor is the widest portion of Tule Creek within the Boulder Brush Corridor. In this location, Tule Creek supports three intermittent stream channels and emergent wetlands. Due to the presence of wetland habitat, this entire segment is also considered RPO wetlands.

The next segment of Tule Creek to the south is bisected by an existing disturbed area. In this location, Tule Creek includes an overstory of the southern arroyo willow riparian forest composed primarily of red willow and an understory dominated by upland species (Figure 2.3-1 and the Figure 4-1 series of Appendix D). Because the southern riparian forest supports red willow, salt cedar, and mulefat, these areas are considered a wetland under the RPO definition (County of San Diego 2012). The intermittent channel located in the understory of the southern arroyo willow riparian forest is also considered RPO wetlands.

The RPO wetland along Ribbonwood Road is an underdeveloped channel within Tule Creek, adjacent to the road that supports a small patch of southern arroyo willow riparian forest intermixed with big sagebrush; the understory is composed of upland shrub and herbaceous species (i.e., big sagebrush, cheat grass, seaside heliotrope, and western ragweed).

Outside of Tule Creek, all of the features within the Boulder Brush Corridor are ephemeral non-wetland waters or streambeds. As these areas do not have hydric soils and hydrophytic vegetation, they do not have biological functions as a wetland nor do they have populations of wetland dependent species (Appendix D). Thus, the ephemeral drainages do not meet the County's RPO criteria and are not RPO wetlands.

Resource Protection Ordinance Wetland Buffer

The RPO prescribes a buffer area around wetlands to "protect the environmental and functional habitat values of the wetland," and buffers range from 50 feet to 200 feet from the edge of the

wetland (County of San Diego 2012). The following examples provide guidance on determining appropriate buffer widths.

- A 50-foot wetland buffer would be appropriate for lower quality RPO wetlands where the wetland has been assessed to have low physical and chemical functions, vegetation is not dominated by hydrophytes, soils are not highly erosive, and slopes do not exceed 25%.
- A wetland buffer of 50–100 feet is appropriate for moderate to high quality RPO wetlands which support a predominance of hydrophytic vegetation or wetlands within steep slope areas (greater than 25%) with highly erosive soils. Within the 50- to 100-foot range, wider buffers are appropriate where wetlands connect upstream and downstream, where the wetlands serve as a local wildlife corridor, or where the adjacent land use(s) would result in substantial edge effects that could not be mitigated.
- Wetland buffers of 100–200 feet are appropriate for RPO wetlands within regional wildlife corridors or wetlands that support significant populations of wetland-associated sensitive species or where stream meander, erosion, or other physical factors indicate a wider buffer is necessary to preserve wildlife habitat.
- Buffering of greater than 200 feet may be necessary when an RPO wetland is within a regional corridor or supports significant populations of wetland-associated sensitive species and lies adjacent to land use(s) which could result in a high degree of edge effects within the buffer. Although the RPO stipulates a maximum of 200 feet for RPO wetland buffers, actions may be subject to other laws and regulations (such as the federal Endangered Species Act) that require greater wetland buffer widths.

Given the predominance of hydrophytic vegetation in the tree strata and general lack of hydrophytic vegetation in the herb strata, the RPO wetland surrounding the southern segment of Tule Creek and along Ribbonwood Road is considered to be moderate quality. The area is also already traversed by a dirt road with a culvert. Thus, a 50-foot buffer along these areas would be appropriate. The northern segment of Tule Creek contains moderate to high value habitat based on the predominance of hydrophytic vegetation, but this area lacks significant populations of wetland species and wildlife corridor functions. Thus, a 100-foot buffer along northern Tule Creek is appropriate.

Boulder Brush Corridor

RPO wetlands have been identified at three locations associated with Tule Creek within the Boulder Brush Corridor, as discussed above. (See Figure 2.3-1 and the Figure 4-1 series of Appendix D). Buffers for each of the locations is discussed below.

The RPO wetland located in the central portion of the Boulder Brush Corridor is the widest portion of Tule Creek within the Boulder Brush Corridor. In this location, a 100-foot buffer is appropriate

for this RPO wetland. While this area contains moderate to high-quality RPO wetlands which support a predominance of hydrophytic vegetation, it is not considered a regional wildlife corridor nor it does it support significant populations of wetland-associated sensitive species. Thus, a buffer greater than 100-feet is not necessary.

The RPO wetland surrounding the next segment of Tule Creek to the south is bisected by an existing disturbed area. In this location, Tule Creek is considered to be moderate quality based on the predominance of hydrophytic vegetation in the tree strata and general lack of hydrophytic vegetation in the herb strata. There is an existing disturbed area that bisects this RPO wetland and surface water is diverted through a culvert below the road. Adjacent land uses include off-road vehicle activities but the area is otherwise undeveloped. Based on this information, a 50-foot RPO wetland buffer is appropriate to buffer this RPO wetland against edge effects and maintain existing wildlife corridors.

The RPO wetland along Ribbonwood Road is an underdeveloped channel within Tule Creek, adjacent to the road that supports a small patch of southern arroyo willow riparian forest intermixed with big sagebrush; the understory is composed of upland shrub and herbaceous species (i.e., big sagebrush, cheat grass, seaside heliotrope, and western ragweed). Based on this information, a 50-foot RPO wetland buffer is appropriate to buffer this area against edge effects and maintain existing wildlife corridors.

Campo Corridor

The jurisdictional resources within the Campo Corridor consist of tributaries to Campo Creek and Tule Creek. Small ephemeral channels collecting runoff and surface flow from the hillslopes and roads that drain toward Campo Creek characterize the majority of the Campo Corridor. There is an unnamed drainage with a wide floodplain bisecting the Campo Corridor in a north–south direction. This floodplain has a low-flow channel where it receives surface flow that drains into Campo Creek, but the majority of the floodplain appears to be supported by subsurface flow, indicated by the patches of riparian herbs, shrubs, and trees within portions of the floodplain; the channel is considered an intermittent non-wetland water of the United States. There are sections of the floodplain dominated by upland species, such as big sagebrush scrub, tall tumble mustard, and cheat grass. There are also a few drainages in the northeast that appear to drain east and connect to Tule Creek. None of the ephemeral drainages (both tributaries to Campo Creek and Tule Creek) within the Campo Corridor supported hydrophytic vegetation; therefore, no data station samples were conducted. These features are considered ephemeral non-wetland waters of the United States. Some features appear to be completely isolated from Campo Creek or Tule Creek as they completely abate into uplands and are not considered waters of the United States.

Campo Creek receives surface and subsurface flows from the surrounding hills and mountains. Campo Creek flows west through Campo Valley and into Mexico where it connects to Tecate Creek. Tecate Creek continues flowing west and northwest and eventually enters the United

States near Marron Valley where it flows into the Tijuana River. The Tijuana River outlets into the Pacific Ocean at Imperial Beach. Therefore, the waters within the Campo Corridor are considered subject to regulation by ACOE.

Tule Creek receives surface and subsurface flows from headwaters originating in the Laguna Mountains northwest of the Campo Corridor. It continues draining in a downward gradient in an east and southeast orientation into Tule Lake, located approximately 4.5 miles southeast of the Campo Corridor. Water then flows into Tule Canyon, which eventually outlets into Carrizo Creek where it drains north/northeast. Carrizo Creek turns into Carrizo Wash and connects to San Felipe Wash and eventually into the Salton Sea to form a significant nexus to a traditional navigable water. Therefore, the waters within the Campo Corridor are considered subject to regulation by ACOE.

The Campo Corridor supports non-wetland stream features, wetland habitat associated with the unnamed channel and floodplain, as well as some basins and seeps/springs that are all considered jurisdictional waters of the United States. One seep/spring supports emergent wetland that is otherwise in a completely upland area in the northeast corner of the Campo Corridor. Another seep/spring supports a small freshwater marsh adjacent to a dirt road near Live Oak Trail. Emergent wetland and southern willow scrub, and valley Sacaton grassland occur within the unnamed channel/floodplain and meet the definition of a three-parameter wetland (i.e., containing hydric soils, hydrology, and hydrophytic vegetation).

The Campo Corridor includes approximately 1.3 acres (18,407 linear feet) of non-wetland jurisdictional waters of the United States and approximately 0.68 acres of riparian habitat under the federal jurisdiction. Land within the Reservation Boundary is subject to federal regulations only. The Reservation is not under the jurisdiction of CDFW or RWQCB and is not subject to the County RPO. Refer to the EIS for additional details.

2.3.1.8 Habitat Connectivity and Wildlife Corridors

Wildlife corridors are defined as areas that connect suitable wildlife habitat in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features, such as canyon drainages, ridgelines, or areas with vegetation cover, provide corridors for wildlife travel. Wildlife corridors are important because they provide access to mates, food, and water; allow the dispersal of wildlife from high-density areas; and facilitate the exchange of genetic traits between populations (Beier and Loe 1992). Habitat linkages are patches of native habitat that function to join two larger patches of habitat. They serve as connections between habitat patches and help reduce the adverse effects of habitat fragmentation. The linkage represents a potential route for gene flow and long-term dispersal. Habitat linkages may serve as both habitat and avenues of gene flow for small animals such as passerine birds, small mammals, and reptiles and amphibians. Habitat linkages may be represented by continuous patches of habitat or by nearby

habitat "islands" that function as "stepping stones" for dispersal. Wildlife corridors are considered sensitive by resource and conservation agencies.

Both the Boulder Brush Corridor and Campo Corridor are located in the same general area of rural southeast San Diego County. While I-8 represents a significant barrier to larger mammal movement, wildlife currently are able to traverse the Boulder Brush Corridor and Campo Corridor and surrounding undeveloped areas in an unencumbered manner. This topography does not pose difficulties for most wildlife use. Mule deer, coyote, cougar, bobcat, and other species are readily able to scale the steep slopes and gently rolling hills on the Project Site and in the surrounding area. Further, Bureau of Land Management open space is located nearby, which allows for unhindered movement.

The Boulder Brush Corridor and Campo Corridor are not readily identifiable as corridors per se, because wildlife movement is not constrained or directed through the Project Site. The Boulder Brush Corridor is, however, included within a Core Wildlife Area due to its size and the undeveloped land in the surrounding area (County of San Diego 2010a).[3]

Boulder Brush Corridor

The Boulder Brush Corridor is located within the Peninsular Range and the Jacumba Mountains are located to the east. In-Ko-Pah, Tierra Blanca, and Sawtooth Mountains are located to the north, and Laguna Mountains are located to the northwest. The Boulder Brush Corridor is located in McCain Valley, a low-lying area between these mountains that has little topographical relief with the exception of one hill located in the southwest corner of the Boulder Brush Corridor. Tule Creek runs north/south within the southern half of the Boulder Brush Corridor. There is what appears to be a manufactured impoundment along Tule Creek just north of the western portion of the Boulder Brush Corridor. Both the Boulder Brush Corridor and the Campo Corridors are located within the Pacific Flyway, which is a major north–south migration route for birds that travel between North and South America. The Boulder Brush Corridor does not support any large bodies of water or wetlands that attract large migration stopovers or attractants for avian and bat species. The Pacific Flyway is discussed below under Campo Corridor.

"Sensitive habitat lands" as defined by the County (County of San Diego 2012) include wildlife corridors. The Boulder Brush Corridor area is not likely to be part of a regional corridor or linkage for large mammals due to the lack of topography surrounding the Boulder Brush Corridor that would constrain wildlife to traverse only through the Boulder Brush Corridor. Wildlife can move throughout the Boulder Brush Corridor unconstrained.

The Boulder Brush Corridor is located approximately 2.1 miles west of designated critical habitat for Peninsular bighorn sheep. The Boulder Brush Corridor is likely too far removed from the

[3] The County of San Diego biological guidelines (County of San Diego 2010a) define a Core Wildlife Area as a, block of habitat that is typically 500 acres or more. Smaller areas with particularly valuable resources may also be considered a core wildlife area.

eastern-sloped open mountainous terrain that bighorn sheep prefer, and is too densely vegetated to provide suitable habitat for the species. In addition, the Boulder Brush Corridor does not provide inter-mountain connectivity habitat between occupied mountain ranges and Peninsular bighorn sheep have not been documented in the region. There are potential water sources approximately 2.5 and 3.75 miles from the southeastern most corner of the Boulder Brush Boundary that could attract bighorn sheep to the area, although they are located in areas outside of the mountain ranges and thus unlikely to attract bighorn sheep. Based on their known range, lack of USFWS Critical Habitat on site, and unsuitable habitat between the Boulder Brush Corridor and known range, this species is not expected to occur within the Boulder Brush Corridor nor use the Boulder Brush Corridor for movement. Additionally, USFWS agreed with this assessment during the October 10, 2018, and February 21, 2019, USFWS meetings and at the County batching meeting with CDFW and USFWS.

Campo Corridor

The Reservation Boundary generally extends from the United States/Mexico international border north to the Manzanita Reservation. I-8 traverses the Reservation. While I-8 represents a significant barrier to larger mammal movement, the Reservation may nonetheless serve as a portion of home ranges for larger mammals, such as mule deer and cougar.

The Reservation is generally open with occasional roads, residences and other buildings. There are wide floodplains with intermittent channels in the central portion of the Campo Corridor as well as small ephemeral washes throughout the Reservation. The Campo Corridor is located approximately 2.1 miles west of designated critical habitat for Peninsular bighorn sheep. The Campo Corridor is likely too far removed from the eastern-sloped open mountainous terrain that bighorn sheep prefer, and is too densely vegetated to provide suitable habitat for the species. In addition, the Campo Corridor does not provide inter-mountain connectivity habitat between occupied mountain ranges and Peninsular bighorn sheep have not been documented in the region. There are no active water impoundments or stock ponds within the Campo Corridor. While there are potential water sources approximately 2.5 and 3.75 miles to the southeast of the northeastern portion of the Reservation Boundary that could attract bighorn sheep to the area, they are located in areas outside of the mountain ranges and thus unlikely to attract bighorn sheep. Based on its known range, lack of USFWS Critical Habitat, and unsuitable habitat between the Campo Corridor and its known range, this species is not expected to occur within the Campo Corridor or use the site for movement.

The Campo Corridor and Boulder Brush Corridor were evaluated to determine if the areas serve as a migratory bird flyway due to the position within the Pacific Flyway migration route for birds that travel between North and South America. However, the primary routes for migration within the Pacific Flyway occur along the coast and inland – generally from the Gulf of California up through the Salton Sea area and then north through the deserts and into the Central Valley. Largely,

gross flight paths used by migrating species stay on either side of the main north/south mountain ranges (USFWS, NPS). Species like Swainson's hawk and ferruginous hawk fly up through the Borrego Valley (Unitt 2004) when migrating. The Salton Sea, approximately 40 miles northeast of the Project Site, is an important stopover for many birds that travel inland. In addition, some bird species use the Salton Sea as a wintering area. The Campo Corridor does not support any bodies of water or wetlands that attract large migration stopovers or attractants for avian and bat species. The closest large bodies of water are Tule Lake, located approximately 4.5 miles southeast, and Morena Reservoir, located approximately 13 miles west. Therefore, although birds likely migrate over the Campo Corridor and certain birds may forage on site, the Campo Corridor is not considered a stopover for birds migrating to and from the Salton Sea, particularly with the agricultural fields and irrigation resources available in the El Centro and Brawley areas south of the Salton Sea.

2.3.2 Regulatory Setting

The Boulder Brush Corridor is under the land use jurisdiction of the County. Thus, the Boulder Brush Corridor is subject to federal, state, and local regulations. As previously noted, the Campo Corridor is subject to federal regulations only. Below is a discussion of the relevant regulations.

2.3.2.1 Federal

Federal regulations are applicable to the Boulder Brush Facilities on private land under County jurisdiction and the Campo Wind Facilities on the Reservation.

Federal Endangered Species Act

The ESA (16 USC 1531 et seq.) is implemented by USFWS under the United States Code (USC) for protection of various species of freshwater fish, terrestrial wildlife, and plants deemed to be in danger of or threatened with extinction. As part of this regulatory act, the ESA provides for designation of critical habitat, defined in ESA Section 3(5)(A), as specific areas within the geographical range occupied by a species where physical or biological features "essential to the conservation of the species" are found and that "may require special management considerations or protection." Critical habitat may also include areas outside the current geographical area occupied by the species that are nonetheless "essential for the conservation of the species." The Project Site does not overlap any critical habitat.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits the take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, "take" is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so (16 USC 703 et seq.). In December 2017, Department of Interior Principal Deputy Solicitor Jorjani issued a memorandum (M-37050) that

interprets the MBTA to only prohibit intentional take. Unintentional or accidental take that is incidental to an otherwise legal activity is not prohibited. Additionally, EO 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 Federal Register [FR] 3853–3856). The EO requires federal agencies to work with USFWS to develop a memorandum of understanding. USFWS reviews actions that might affect these species.

Clean Water Act

Pursuant to Section 404 of the Clean Water Act, ACOE regulates the discharge of dredged and/or fill material into "waters of the United States." The term "wetlands" (a subset of waters of the United States) is defined in 33 Code of Federal Regulations 328.3(c)(4) as follows:

> those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

In the absence of wetlands, the limits of ACOE jurisdiction in non-tidal waters, such as intermittent streams, extend to the "ordinary high water mark," which is defined in 33 Code of Federal Regulations 328.3(c)(6).

Bald and Golden Eagle Protection Act

Bald eagle and golden eagle are federally protected under the Bald and Golden Eagle Protection Act, which was passed in 1940 to protect bald eagles (*Haliaeetus leucocephalus*) and amended in 1962 to include golden eagles (16 USC 668a–d). The Bald and Golden Eagle Protection Act (16 USC 668–668d) prohibits the take, possession, sale, purchase, barter, offering to sell or purchase, export or import, or transport of bald eagles and golden eagles and their parts, eggs, or nests without a permit issued by USFWS. The definition of "take" includes to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb. The act prohibits any form of possession or taking of both eagle species, and the statute imposes criminal and civil sanctions as well as an enhanced penalty provision for subsequent offenses. Further, the act provides for the forfeiture of anything used to acquire eagles in violation of the statute. The statute exempts from its prohibitions on possession the use of eagles or eagle parts for exhibition, scientific, and Native American religious uses.

However, there is allowance within the act that, after investigation, the Secretary of the Interior may determine that direct and purposeful taking is compatible with the preservation of bald eagle or golden eagle. If so, then the Secretary may permit the taking, possession, and transportation of specimens for the scientific or exhibition purposes of public museums, scientific societies, and zoological parks, or

for the religious purposes of Native American tribes. The Secretary of the Interior may also determine that it is necessary to permit the taking of eagles for the protection of wildlife or of agricultural or other interests in any particular locality. This permitting may be for the seasonal protection of domesticated flocks and herds, and may also permit the taking, possession, and transportation of golden eagles for the purposes of falconry if the eagles may cause depredations on livestock or wildlife. Finally, the Secretary of the Interior may permit the taking of golden eagle nests that interfere with resource development or recovery operations, or in an emergency.

In November 2009, USFWS published the Final Eagle Permit Rule (74 Federal Register 46836–46879) providing a mechanism to permit and allow for incidental (i.e., non-purposeful) take of bald and golden eagles pursuant to the Bald and Golden Eagle Protection Act (16 USC 668 et seq.). Disturb means "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior." These regulations may apply to projects such as wind turbines and transmission lines, and were followed by issuance of guidance documents for inventory and monitoring protocols and for avian protection plans (Pagel et al. 2010). On December 14, 2014, the USFWS released a final rule revising the regulations for permits for incidental take of eagles and take of eagle nests. The Service analyzed various alternative management options and rule revisions, including the final rule revisions, in a programmatic environmental impact statement (PEIS). Among other revisions, the final rule addresses criteria for permit issuance, compensatory mitigation requirements, permit duration, and data standards for submitting permit applications.

More recently, the Bald Eagle and Golden Eagle Electrocution Prevention in-lieu Fee Program (Eagle ILF Program) was authorized by the USFWS to sell compensatory mitigation credits for bald and golden eagles to utilities. The Eagle ILF Program is the only mitigation banking option currently available specific to eagles and authorized by USFWS to offset incidental take.

USFWS Land-Based Wind Energy Guidelines

The USFWS and the Wind Turbine Guidelines Advisory Committee developed voluntary Guidelines as part of a system for evaluating and addressing the potential negative impacts of wind energy projects on species of concern. Although the Guidelines expired December 31, 2014, they continue to be voluntarily followed by many in the industry. The Guidelines provide a structured, scientific process for addressing wildlife conservation concerns at all stages of land-based wind energy development. They also promote effective communication among wind energy developers and federal, state, and local conservation agencies and tribes. When used in concert with appropriate regulatory tools, the Guidelines form the best practical approach for conserving species of concern. The Guidelines assist developers in identifying listed, proposed, or candidate endangered and threatened species.

Executive Orders 11988 (Floodplain Management), 11990 (Protection of Wetlands), and 13112 (Invasive Species)

EO 11988 requires federal agencies to avoid to the extent practicable the long-term and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. This EO provides an eight-step process that agencies should carry out as part of their decision-making process on projects that have potential impacts to or within the floodplain.

EO 11990 is an overall national wetlands policy for all agencies managing federal lands, sponsoring federal projects, or providing federal funds to state or local projects. The EO requires federal agencies, in planning their actions, to consider alternatives to wetland sites and limit potential damage if an activity affecting a wetland cannot be avoided. The evaluation process follows the same eight steps as for EO 11988, Floodplain Management. Importantly, this EO applies to all wetlands, not just those falling under jurisdiction of the CWA.

EO 13112 requires federal agencies to "prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological, and human health effects that invasive species cause."

Campo Band of Mission Indians Land Use Plan

The Campo Band of Mission Indians has adopted a land use plan (Campo Band of Mission Indians 2010) to guide future development on the Reservation in accordance with the Band's goals. Under the Campo Lease, the following Tribal regulations and plans are not applicable to the Campo Wind Facilities, but are described below for informational purposes. The Land Use Plan identifies the following biological resources on the Reservation:

- The New Reservation contains significant stands of oak woodlands. Land use activities shall preserve such woodlands to the maximum extent feasible.
- Riparian habitat, consisting of scattered willows, baccharis, the Tecate tarplant, and ruderals such as eastern cocklebur, dog mayweed, salt heliotrope, and hoary nettle, exists to some degree along Campo Creek and Diabold Creek and is to be preserved to the maximum extent feasible.
- Rare, threatened, and endangered plants and threatened, endangered, and sensitive wildlife will be afforded the necessary protection and preservation as required.

The land use plan also designates wilderness protection areas along the western side of the Reservation and the northern area of the Reservation, which are areas to remain in their natural state to the maximum extent feasible. The land use plan also notes a goal to improve infrastructure,

including the electric power grid service. The overall intent of the land use plan is to provide balanced development and conservation. The land use Plan also identifies that the Campo Environmental Protection Agency is to be involved in development projects when the proposed use may potentially affect the environment of the Reservation.

2.3.2.2 State

State regulations are applicable to the Boulder Brush Facilities on private land under the County's jurisdiction. State regulations are not applicable to the Campo Wind Facilities on the Reservation.

California Endangered Species Act

CDFW administers the California Endangered Species Act (CESA; California Fish and Game Code [CFGC] Section 2050 et seq.), which prohibits the "take" of plant and animal species designated by the California Fish and Game Commission as endangered or threatened in California. Under CESA Section 86, take is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA Section 2053 stipulates that state agencies may not approve projects that will "jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy."

CFGC Sections 3511, 4700, and 5515 designate certain birds, mammals, and fish as "Fully Protected" species. These species may not be taken or possessed without a permit from the Fish and Game Commission, and such take may only occur pursuant to scientific research or in connection with an authorized Natural Communities Conservation Plan (NCCP). No "incidental take" of Fully Protected species is allowed.

CESA 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 in this chapter, the Native Plant Protection Act (CFGC Sections 1900–1913), or the California Desert Native Plants Act (Food and Agricultural Code, Section 80001)."

CFGC Section 2081(b) and (c) authorizes take of endangered, threatened, or candidate species if take is incidental to otherwise lawful activity and if specific criteria are met. In such cases, CDFW issues the applicant an incidental take permit, which functions much like an incidental take statement in the federal context. CFGC Sections 2081(b) and (c) also require CDFW to coordinate consultations with USFWS for actions involving federally listed species that are also state-listed species. In certain circumstances, Section 2080.1 of CESA allows CDFW to adopt a federal incidental take statement or a 10(a) permit as its own, based on its findings that the federal permit

adequately protects the species and is consistent with state law. CDFW may not issue a Section 2081(b) incidental take permit for take of "Fully Protected" species. The California Fish and Game Code lists the Fully Protected species in Section 3511 (birds), Section 4700 (mammals), Section 5050 (reptiles and amphibians), and Section 5515 (fish).

California Fish and Game Code

Streambed Alteration Agreement

Pursuant to CFGC Section 1602, 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. A Streambed Alteration Agreement (CFGC Section 1602 et seq.) is required for impacts to jurisdictional resources, including streambeds and associated riparian habitat.

Birds and Mammals

According to CFGC Sections 3511 and 4700, which regulate birds and mammals, a Fully Protected species may not be taken or possessed. CDFW may not authorize the take of such species except for necessary scientific research, for the protection of livestock, and when the take occurs for Fully Protected species within an approved NCCP.

California Fish and Game Code

The California Fish and Game Code provides protection for wildlife species. It states that no mammals, birds, reptiles, amphibians, or fish species listed as Fully Protected can be "taken or possessed at any time." In addition, CDFW affords protection over the destruction of nests or eggs of native bird species (CFGC Section 3503), and it states that no birds in the orders of Falconiformes or Strigiformes (birds of prey) can be taken, possessed, or destroyed (CFGC Section 3503.5). CDFW cannot issue permits or licenses that authorize the take of any Fully Protected species, except under certain circumstances such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock (CFGC Section 3511). Separate from federal and state designations of species, CDFW designates certain vertebrate species as Species of Special Concern (SSC) based on declining population levels, limited ranges, and/or continuing threats that have made them vulnerable to extinction.

California Native Plant Protection Act

The Native Plant Protection Act of 1977 (CFGC Section 1900–1913) directed CDFW to carry out the legislature's intent to "preserve, protect and enhance rare and endangered plants in this State." The Native Plant Protection Act gave the California Fish and Game Commission the power to designate native plants as "endangered" or "rare," and to protect endangered and rare plants from

take. When CESA was passed in 1984, it expanded on the original Native Plant Protection Act, enhanced legal protection for plants, and created the categories of "threatened" and "endangered" species to parallel the ESA. CESA categorized all rare animals as threatened species under CESA, but did not do so for rare plants, which resulted in three listing categories for plants in California: rare, threatened, and endangered. The Native Plant Protection Act remains part of the California Fish and Game Code, and mitigation measures for impacts to rare plants are specified in a formal agreement between CDFW and project proponents.

Porter–Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act protects water quality and the beneficial uses of water. It applies to surface water and groundwater. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the RWQCBs develop regional basin plans that identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of statewide plans and basin plans. Waters regulated under the Porter–Cologne Water Quality Control Act include isolated waters that are no longer regulated by ACOE. Developments with impacts to jurisdictional waters must demonstrate compliance with the goals of the act by developing Stormwater Pollution Prevention Plans (SWPPPs), standard urban stormwater mitigation plans, and other measures to obtain regulatory permits from the RWQCB.

California Environmental Quality Act

CEQA requires identification of a project's potentially significant impacts on biological resources and feasible mitigation measures and alternatives that could avoid or reduce significant impacts. CEQA Guideline 15380(b)(1) defines endangered animals or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors" (14 CCR 15000 et seq.). A rare animal or plant is defined in CEQA Guideline 15380(b)(2) as a species that, although not presently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or … [t]he species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used in the federal Endangered Species Act." Additionally, an animal or plant may be presumed to be endangered, rare, or threatened if it meets the criteria for listing, as defined further in CEQA Guideline 15380(c). CEQA also requires identification of a project's potentially significant impacts on riparian habitats (such as wetlands, bays, estuaries, and marshes) and other sensitive natural communities, including habitats occupied by endangered, rare, and threatened species.

2.3.2.3 Regional and Local

County regulations are applicable to the Boulder Brush Facilities on private land under the County's jurisdiction. County regulations are not applicable to the Campo Wind Facilities on the Reservation.

Future East County Multiple Species Conservation Program Plan

The County has prepared a preliminary planning map for the future East County Multiple Species Conservation Program (MSCP) Plan. The intent of preparing the East County MSCP Plan is to create a large, connected preserve system that addresses the regional habitat needs for multiple species. The future East County MSCP Plan would cover approximately 1.6 million acres within the eastern unincorporated portion of San Diego County. The Cleveland National Forest is located along the western boundary of the East County MSCP Plan area. The East County MSCP Plan area is bounded by Riverside County to the north, Imperial County on the east, and Mexico to the south. Tribal lands will be excluded from the East County MSCP Plan. Preparation of a future East County MSCP Plan is a cooperative effort among the County, USFWS, and CDFW. The future East County MSCP Plan currently has no schedule for completion. Authority for this process comes from the California Natural Community Conservation Planning Act and Section 10(a) of the ESA that addresses habitat conservation plans.

The future East County MSCP Plan, if adopted, would be applicable only to the Boulder Brush Boundary portion of the Project, which is subject to County jurisdiction. The Boulder Brush Corridor is located within the East County MSCP Plan area (Figure 2-2, Regional Planning, of Appendix D). Projects in this area are currently subject to a Planning Agreement between the County, the CDFW, and USFWS for the East County MSCP (County of San Diego 2014). The Planning Agreement is intended to determine if project approval would have an effect on the preparation and approval of the future East County MSCP. A preliminary planning map has been completed for the East County MSCP. According to this map, the Boulder Brush Corridor is located partially within a preliminarily delineated Agricultural or Natural Upland within Focused Conservation Area (FCA) of the East County MSCP Plan area, which suggests that the area has regional conservation value (Figure 2-2 of Appendix D). The Planning Agreement outlines preliminary conservation objectives (Table 2.3-5, East County Multiple Species Conservation Program Planning Agreement Conservation Objectives) for the future East County MSCP (County of San Diego 2014). In addition to the preliminary conservation objectives, the Planning Agreement for the East County MSCP Plan identifies an interim project review process. The Planning Agreement is in effect until January 2020.

County Resource Protection Ordinance

The County RPO regulates biological and other natural resources within the unincorporated County. These resources include wetlands, wetland buffers, floodways, floodplain fringe, steep

slope lands, sensitive habitat lands, and significant prehistoric or historic sites. The RPO stipulates that no impacts may occur to wetlands except for scientific research; removal of diseased or invasive exotic plant species; wetland creation and habitat restoration; revegetation and management projects; and crossings of wetlands for roads, driveways, or trails/pathways when certain conditions are met. The same exemptions apply to impacts to wetland buffer areas and improvements necessary to protect adjacent wetlands. Sensitive habitat lands are unique vegetation communities, and support sensitive species, lands essential to the healthy functioning of a balanced natural ecosystem, and wildlife corridors. Impacts to sensitive habitat lands are permitted when impacts have been reduced as much as possible and mitigation provides at least an equal benefit to the affected species (County of San Diego 2012).

2.3.3 Analysis of Project Effects and Determination as to Significance

This section addresses direct, indirect, and cumulative significant impacts as defined by the County's standards of significance to biological resources that would result from implementation of the Project.

This section provides an analysis of Project impacts, both on the Reservation and on private lands, pursuant to the requirements of the CEQA and consistent with the County's Guidelines. Although the County as lead agency is analyzing the Project as a whole, the County's land use jurisdiction is limited to the Boulder Brush Facilities. The BIA has jurisdiction over the Campo Wind Facilities, and has prepared an EIS to evaluate Project effects under the National Environmental Policy Act (NEPA). This analysis hereby adopts and incorporates by reference the EIS.

2.3.3.1 Definition of Impacts

This impact analysis assesses the whole of the Project, including Project impacts both within the Campo Corridor and the Boulder Brush Corridor for the purposes of CEQA disclosure for public agency decision makers and the public. However, the Campo Wind Facilities are subject to NEPA and other federal regulations only; biological resources regulated solely by the state and/or County are not applicable to the Reservation. Thus impacts based on non-federal regulations are presented for disclosure purposes only for the Campo Wind Facilities.

Direct impacts refer to 100% permanent loss of a biological resource. For purposes of this analysis, County considers direct and temporary impacts as permanent long-term impacts. Therefore, direct and temporary disturbance associated with the Boulder Brush Facilities refers to the limits of grading (i.e., the development footprint) for installation of the gen-tie poles, access roads, the switchyard and high-voltage substation, and fuel modification zones (FMZs). Temporary direct impacts are associated with grading for permanent roads where they require temporarily impacted areas on either side of the permanent road, a temporary construction access, a laydown yard needed for installation of the poles, and a parking area during construction. The Figure 2.3-3 series shows the impacts associated with the Boulder Brush Facilities overlaid on biological resources.

For purposes of this analysis, direct impacts associated with the Campo Wind Facilities refers to limits of grading for the wind turbines, access roads, FMZ, and associated components (i.e., collector substation, gen-tie line, O&M building, parking, batch plant, meteorological towers). There are no temporary impacts described for the Campo Wind Facilities because no temporary impact areas have been identified within the Campo Wind Facilities at this time (they are all considered permanent impacts).

Once construction is complete, disturbed areas would be graded to the approximate original contour, as feasible, and areas disturbed during construction would be stabilized and reclaimed using appropriate erosion control measures, including site-specific contouring, reseeding, or other measures designed and implemented in compliance with the SWPPPs, and Revegetation Plans. Separate plans are required for the Campo Wind Facilities and the Boulder Brush Facilities. Direct impacts were quantified by overlaying the Project survey data layers on GIS-located biological resources.

Long-term permanent direct impacts associated with the Campo Wind Facilities refers to permanent Project components (i.e., wind turbines, access roads, FMZ, collector substation, O&M building, and meteorological towers) within the Campo Corridor.

In addition, the Project may have direct impacts to biological resources during operation and maintenance. These impacts could include bird and/or bat electrocutions at overhead transmission line locations within both the Campo Corridor and Boulder Brush Corridor.

Indirect impacts are reasonably foreseeable effects caused by Project implementation on remaining or adjacent biological resources outside the direct limits of vegetation clearing and grading and indirect impacts associated with operation and maintenance of permanent Project components. Indirect impacts may affect areas within the Project Site but outside the limits of vegetation clearing and grading, including non-impacted areas and areas outside the development footprints, such as downstream effects.

During construction of the Project, temporary indirect impacts may include dust and noise, which could temporarily disrupt habitat and species' vitality; changes in hydrology; disruption of wildlife activity due to increased human activity; short-term habitat fragmentation; invasive species; construction-related chemical pollutants; and alteration of natural fire regime. However, all Project grading would be subject to applicable restrictions and requirements that address erosion and runoff, including the federal Clean Water Act and the National Pollution Discharge Elimination System program, and preparation of a SWPPP. Separate SWPPPs are required for the Campo Wind Facilities and the Boulder Brush Facilities. Project grading within the Boulder Brush Corridor would require submittal of the County Standard Project Stormwater Quality Management Plan (including all applicable construction stormwater best management practices (BMPs) and post-construction source control BMPs). Projects east of the Pacific/Salton Sea Divide are subject to standard project requirements per the County BMP Design Manual and, as applicable, Post-Construction Standards

of the Construction General Permit. Moreover, the Boulder Brush Facilities would be subject to the County Watershed Protection, Stormwater Management, and Discharge Control Ordinance. These programs are expected to minimize Project impacts with respect to erosion/runoff, altered hydrology, and potential impacts from chemical pollutants.

Permanent indirect impacts to adjacent lands may include intrusions by humans, noise, lighting, invasion by exotic plant and wildlife species, effects of chemical pollutants (herbicides and other hazardous materials), runoff from developed areas, litter, habitat fragmentation, and hydrologic changes from irrigation, if applicable.

Cumulative impacts refer to the combined environmental effects of the Project and other past, present, and probable future projects. In some cases, the impact from a single project may not be significant, but when combined with other projects, the cumulative impact may be significant.

2.3.3.2 Candidate, Sensitive, or Special-Status Species

Guidelines for the Determination of Significance

For the purpose of this EIR, the County's Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources (County of San Diego 2010a) and County of San Diego Report Format and Content Requirements: Biological Resources (County of San Diego 2010b) were used to evaluate direct, indirect, and cumulative impacts for the Project. Each general subject area is broken into more specific County guidelines and lettered accordingly to provide additional clarity on this complex resource topic.

A significant impact would result if:

> The project would have a substantial adverse effect, either directly or through habitat modifications, on a candidate, sensitive, or special-status species listed in local or regional plans, policies, or regulations, or by CDFW or USFWS.
>
> A. The project would impact one or more individuals of a species listed as federally or state endangered or threatened.
>
> B. The project would impact an on-site population of a County List A or B plant species, or a County Group 1 animal species, or a species listed as a CDFW Species of Special Concern (SSC). Impacts to these species are considered significant; however, impacts of less than 5% of the individual plants or of the sensitive species' habitat on a project site may be considered less than significant if a biologically based determination can be made that the project would not have a substantial adverse effect on the local long-term survival of that plant or animal taxon.

C. The project would impact the local long-term survival of a County List C or D plant species or a County Group 2 animal species.

D. The project may impact arroyo toad aestivation, foraging, or breeding habitat. Any alteration of suitable habitat within 1 kilometer (3,280 feet) in any direction of occupied breeding habitat or suitable stream segments (unless very steep slopes or other barriers constrain movement) could only be considered less than significant if a biologically based determination can be made that the project would not impact the aestivation or breeding behavior of arroyo toads.

E. The project would impact golden eagle habitat. Any alteration of habitat within 4,000 feet of an active golden eagle nest could only be considered less than significant if a biologically based determination can be made that the project would not have a substantially adverse effect on the long-term survival of the identified pair of golden eagles.

F. The project would result in the loss of functional foraging habitat for raptors. Impacts to raptor foraging habitat is considered significant; however, impacts of less than 5% of the raptor foraging habitat on a project site may be considered less than significant if a biologically based determination can be made that the project would not have a substantial adverse effect on the local long-term survival of any raptor species.

G. The project would impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more not limited to project boundaries, although smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or supports multiple wildlife species. Alteration of any portion of a core habitat could only be considered less than significant if a biologically based determination can be made that the project would not have a substantially adverse effect on the core area and the species it supports.

H. The project would cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing undeveloped lands or other natural habitat areas, to levels that would likely harm sensitive species over the long term. The following issues should be addressed in determining the significance of indirect impacts: increasing human access; increasing predation or competition from domestic animals, pests, or exotic species; altering natural drainage; and increasing noise and/or nighttime lighting to a level above ambient that has been shown to adversely affect sensitive species.

I. The project would impact occupied burrowing owl habitat.

J. The project would impact occupied cactus wren habitat, or formerly occupied coastal cactus wren habitat that has been burned by wildfire.

K. The project would impact occupied Hermes copper habitat.

L. The project would impact nesting success of the following sensitive bird species through grading, clearing, fire-fuel modification, and/or other noise-generating activities such as construction.

Species	Breeding Season
Coastal cactus wren	February 15 through August 15
Coastal California gnatcatcher	February 15 to August 31
Least Bell's vireo	March 15 through September 15
Southwestern willow flycatcher	May 1 through September 1
Tree-nesting raptors	January 15 through July 15
Ground-nesting raptors	February 1 through July 15
Golden eagle	January 1 through July 31
Light-footed clapper rail	February 15 through September 30

Analysis

Guideline A (Federally Listed and State-Listed Species)

Project

Special-status plant surveys were conducted by Dudek in 2017 and 2018 within the Boulder Brush Corridor and in 2010 and 2011 by AECOM on an overlapping project site within the Reservation. There are no federally or state-listed plants within the Project Site; therefore there are no permanent direct impacts to federally or state-listed plants. Golden eagles are present in East County of San Diego; however, the infrequent sightings during the eagle point surveys and U.S. Geological Survey (USGS) biotelemetry data suggests that the Project Area and surrounding area receives little use by eagles and is not the core territory of any eagles (see further discussion under Guidelines B and E below). One federally listed wildlife species, Quino checkerspot butterfly, has been documented in the Campo Corridor in 2010 and was observed in the Boulder Brush Corridor in 2019. Project components would be potentially located within or adjacent to areas mapped or modelled as occupied for Quino checkerspot butterfly. The Project would result in temporary and permanent direct impacts to Quino checkerspot butterfly habitat (portions of which are considered occupied based on Quino checkerspot butterfly observations), which would be **potentially significant** as described in **Impact BI-1** below and the Campo Corridor as described in **Impact BI-A below**.

Boulder Brush Facilities

There are no federally or state-listed plants within the Boulder Brush Corridor; therefore, there are no permanent direct impacts to federally or state-listed plants. One federally listed wildlife species, Quino checkerspot butterfly, is known to occur within the Boulder Brush Corridor, as discussed below.

Impact BI-1: Permanent Direct Impacts to Potentially Occupied Quino Checkerspot Butterfly Habitat

Quino checkerspot butterfly is the only known federally listed species to occur within the Boulder Brush Corridor. Five Quino checkerspot butterflies were observed within the Boulder Brush Corridor once in the southwest portion of the Boulder Brush Corridor during the 2019 focused surveys (Appendix D). Dudek modeled habitat in order to estimate areas within the Boulder Brush Corridor. Of the approximately 121.8 acres of Quino checkerspot habitat modeled within the Boulder Brush Corridor, the Boulder Brush Facilities would result in direct impacts to approximately 54.8 acres of butterfly habitat, (a portion of which is considered occupied based on the 2019 Quino checkerspot butterfly observations). Direct impacts to Quino checkerspot butterfly habitat, a portion of which is considered occupied, would be **potentially significant** (**Impact BI-1**).

Campo Wind Facilities

There are no federally or state-listed plants within the Campo Corridor; therefore, there are no permanent direct impacts to federally or state-listed plants. One federally listed wildlife species, Quino checkerspot butterfly, is known to occur, as discussed below.

Impact BI-A: Permanent Direct Impacts to Potentially Occupied Quino Checkerspot Butterfly Habitat

Quino checkerspot butterfly is the only known federally or state-listed wildlife species to occur within the Campo Corridor. Twenty-seven Quino observations were documented during 2010 USFWS protocol surveys (Attachment A-2). Observations were concentrated in the southern portion of the 2010 BSA (Figure 4-5) (AECOM 2012). In 2018, updated surveys were conducted for the Campo Corridor. No occurrences of Quino were recorded during the focused surveys. Habitat modeling was conducted within the Campo Corridor and identified approximately 674.1 acres of modeled potentially occupied Quino checkerspot butterfly habitat within the Campo Corridor. The Campo Wind Facilities would result in direct impacts to approximately 272.8 acres of Quino checkerspot butterfly habitat (portions of which are considered occupied based on 2010 Quino checkerspot butterfly observations) (Figure 4-6, Quino Checkerspot Butterfly Potentially Occupied Habitat Model, of Appendix D). Direct impacts to Quino checkerspot butterfly habitat, portions of which are considered occupied, would be **potentially significant** (**Impact BI-A**). The analysis and conclusions contained in the EIS are hereby incorporated by reference.

Guideline B (Special-Status Sensitive Species)

Special-Status Plant Species (County List A and B Species)

Project

The Project would result in temporary and permanent direct impacts to special status plant species within the Project Site. Temporary impacts to sensitive plant species are considered permanent impacts because the plants would be potentially lost during disturbances associated with Project construction. The Boulder Brush Facilities would result in direct impacts to five County-list A and B sensitive species as described below in **Impact BI-2**. These plant species include three List A species (Tecate tarplant, Jacumba milk-vetch, and southern jewelflower) and two List B species (sticky geraea and desert beauty). Campo Wind Facilities would result in direct impacts to four County List A species (Tecate cypress, Jacumba milk-vetch, southern jewelflower, and Tecate tarplant) and two County List B species (sticky geraea and desert beauty), as presented in **Impact BI-B** below. Direct impacts to special status plant species outside of the Project development footprint could occur within the Boulder Brush Corridor (**Impact BI-3**) and the Campo Corridor (**Impact BI-C**) if proper measures are not implemented, as described below. Therefore, Project impacts to special status plant species (County List A and B species) would be **potentially significant**, as described in **Impact BI-2**, **Impact BI-3**, **Impact BI-B**, and **Impact BI-C** below.

Boulder Brush Facilities

Impact BI-2: Direct Impacts to Special-Status Plant Species (Temporary and Permanent)

The Boulder Brush Facilities would include temporary grading or vegetation clearing disturbances as well as the permanent installation of gen-tie line support poles, high-voltage substation, switchyard, access roads and fuel management zones. Based on surveys conducted in 2017 and 2018, construction of the Boulder Brush Facilities would result in permanent direct impacts to the following County-listed special status plant species: Tecate tarplant (List A, 61 of 3,029 impacted), Jacumba milk-vetch (List A, 111 of 255 impacted), southern jewelflower (List A, 20 of 30 impacted), sticky geraea (List B, 203 of 673 impacted), and desert beauty (List B, 1,308 of 1,400 impacted). It is noted that the number of plants present varies year-to-year and season-to-season due to variations in rainfall, weather conditions, and other factors. See the Figure 2.3-3 series for the location of anticipated County List A and B special status plant species impacts. This direct loss of County List A and B sensitive plant species within the Boulder Brush Corridor would be **potentially significant** (**Impact BI-2**).

Impact BI-3: Direct Impacts to Special-Status Plant Species Outside of Boulder Brush Facilities Development Footprint

Clearing, trampling, or grading of special-status plant species outside of the Boulder Brush Facilities development footprint could occur if proper measures are not implemented (such as construction flagging/fencing). These potential impacts could also result in gaps in vegetation that allow exotic, non-native plant species to become established. These potential temporary direct impacts to County List A and B sensitive plant species within the Boulder Brush Corridor would be **potentially significant** (**Impact BI-3**).

Campo Wind Facilities

Impact BI-B: Permanent Direct Impacts to Special-Status Plant Species

The Campo Wind Facilities would likely result in the loss of special-status plant species during construction within the Campo Corridor. No impacts to federally listed plants would occur, however, impacts to County List A and B species would likely occur. These impacts cannot be quantified because location information for special-status plants identified during surveys in 2010 and 2011 for the previously proposed Shu'luuk Wind project was not recorded. Special-status plants potentially impacted within the Campo Corridor include Tecate cypress (List A), Jacumba milk-vetch (List A), sticky geraea (List B), southern jewelflower (List A), Tecate tarplant (List A), and desert beauty (List B). Permanent direct impacts to County List A and B plant species would be **significant and unavoidable** (**Impact BI-B**).

Impact BI-C: Direct Impacts to Special-Status Plant Species Outside of Campo Wind Facilities Development Footprint

Clearing, trampling, or grading of special-status plant species outside of the Campo Wind Facilities development footprint could occur if proper measures are not implemented. These potential impacts could also result in gaps in vegetation that allow exotic, non-native plant species to become established. These potential temporary direct impacts to County List A and B sensitive plant species within the Campo Corridor would be **potentially significant** (**Impact BI-C**).

Special-Status Wildlife Species (County Group 1 or CDFW SSC)

Project

Temporary direct and permanent direct impacts to special-status wildlife species were quantified by comparing the Project Site with suitable habitat for wildlife species observed or those that have a high potential to occur within Project Site. Direct disturbance of vegetation to accommodate the Project would result in loss of suitable habitat for wildlife species. Impacts to special-status wildlife species (County Group 1 or SSC wildlife species) and their habitat within the Project Site would be **potentially significant** (**Impact BI-4** through **Impact BI-7** and **Impact BI-D** through **Impact BI-F**, respectively).

Boulder Brush Facilities

Impact BI-4: Temporary Direct Impacts to Habitat for Special-Status Wildlife Species

Construction of the Boulder Brush Facilities would result in temporary direct impacts to habitat for special-status wildlife species (County Group 1 or SSC wildlife species), including individual amphibians, reptiles, birds, and small mammals, and their suitable habitat because of direct disturbance to and thus loss of suitable habitat. Temporary direct impacts to habitat for special-status wildlife species resulting from construction of the Boulder Brush Facilities would be **potentially significant** (**Impact BI-4**).

Impact BI-5: Permanent Direct Impacts to Habitat for Special-Status Wildlife Species

Implementation of the Boulder Brush Facilities would result in the direct loss of habitat, including foraging habitat, for the following County of San Diego Group 1, and/or SSC species: San Diegan tiger whiptail, San Diego banded gecko, Blainville's horned lizard, Coast patch-nosed snake, Cooper's hawk, Bell's sage sparrow, loggerhead shrike, yellow warbler, western red bat, San Diego black-tailed jackrabbit, and San Diego desert woodrat. These species occur within a variety of habitats and through a wide geographic, topographic, and elevation ranges where there are an abundance of these species within the south desert slope and southern mountains ecoregions, and generally a substantial portion of the suitable habitat for these species are in public ownership and therefore reasonably anticipated to remain undisturbed. Habitat modeled within the Boulder Brush Corridor for each of these species is shown in Table 2.3-3. However, since the Boulder Brush Facilities would result in impacts to more than 5% of modeled habitat within the Boulder Brush Corridor for each of the species, impacts to suitable habitat within the Boulder Brush Facilities are considered **potentially significant** (**Impact BI-5**).

Impact BI-6: Direct Impacts to Special-Status Wildlife Species Outside of Boulder Brush Facilities

Clearing, trampling, or grading of vegetation communities outside of the Boulder Brush Facilities could occur if proper measures are not implemented. These potential impacts could reduce suitable habitat and alter the ecosystem of the County Group 1 and/or CDFW SSC wildlife species identified above. These temporary direct impacts during construction to state and County sensitive wildlife species would be **potentially significant** (**Impact BI-6**).

Impact BI-7: Impacts to Wildlife Species from Electrocution or Collisions

A potential impact unique to projects with transmission lines is electrocution or collisions with poles and structures. The Project includes an overhead electrical transmission line (gen-tie line) from the Campo Corridor through Boulder Brush Corridor to the proposed high-voltage substation

and 500 kV switchyard to the existing 500 kV Sunrise Powerlink transmission line. Approximately 3.5 miles of the gen-tie line and the overhead connection to the Sunrise Powerlink would be located within the Boulder Brush Corridor. While the use of the Boulder Brush Corridor MBTA bird species is relatively low due to low occurrence of these species in the area, the potential for electrocution from overhead lines would result from the Boulder Brush Facilities. The gen-tie line support poles could provide perches for birds, thereby increasing the potential risk of fatality associated with collisions and electrocutions from overhead transmission lines and resulting in a **potentially significant** impact to migratory birds within the Boulder Brush Corridor (**Impact BI-7**). Based on the surveys completed between 2015 and 2017 by USGS (Tracey et al. 2016, 2017), the Project Site and surrounding area (i.e., 10-mile buffer around the Project Site) receives little use by eagles and is not the core territory of any eagles. Additionally, there were low occurrences of bats during surveys within the Boulder Brush Corridor, particularly when compared to other areas with higher-quality habitat types in the region. Therefore, the chance for bats and eagle collisions and electrocution is low.

Campo Wind Facilities

Impact BI-D: Permanent Direct Impacts to Habitat for Special-Status Wildlife Species

Implementation of the Campo Wind Facilities would result in the direct loss of habitat for special-status wildlife species, including foraging habitat, for the following County of San Diego Group 1 and Group 2 species and SSCs**)**: barn owl, Blainville's horned lizard, California horned lark, Cooper's hawk, cougar, golden eagle, loggerhead shrike, long-eared owl, merlin, mule deer, northern harrier, peninsular metalmark, prairie falcon, red-shouldered hawk, San Diegan tiger whiptail, San Diego black-tailed jackrabbit, San Diego desert woodrat, turkey vulture, western bluebird, western spadefoot, yellow warbler, Bell's sage sparrow, coast patch-nosed snake, Coronado skink, rosy boa, San Diego banded gecko, San Diego ringneck snake, and western small-footed myotis. Potential impacts to County Group 1 and SSC within the Campo Corridor would be **potentially significant (Impact BI-D)**.

Impact BI-E: Impacts to Special-Status Wildlife Species from Collisions

The Campo Wind Facilities would include approximately 60 turbines. Birds protected under the MBTA would be at risk for collisions with the turbines and gen-tie line support poles, and these impacts would be **potentially significant** (**Impact BI-E**). The infrequent sightings during the eagle point surveys and USGS biotelemetry data suggests that the Campo Corridor and surrounding area receives little use by eagles and is not the core territory of any eagles. Additionally, there were low occurrences of bats during surveys within the Campo Corridor, particularly when compared to other areas with higher-quality habitat types in the region. Therefore, bats and golden eagles are not anticipated to have a high number of collisions with turbines due to the low occurrence of these species using the site.

Impact BI-F: Impacts to Special-Status Wildlife Species from Electrocution

Direct impacts to avian species (birds and bats) could result in mortality or injury due electrocution from overhead transmission lines. Avian species can fly into overhead lines or structures during migration or foraging activities. While the presence of MBTA bird species is relatively low within the Campo Corridor the potential for electrocution for overhead lines would result from the Campo Wind Facilities. The gen-tie line support poles could provide perches for birds, thereby increasing the potential risk of fatality associated with collisions and electrocutions from overhead transmission lines and resulting in a **potentially significant** (**Impact BI-F**) to sensitive avian species including bats and migratory birds within the Campo Corridor.

Direct impacts to bats could result in mortality or injury due to collisions at wind turbines. However, potential effects of the Project on the meta-community of bats in the region, including those species known to be susceptible to collision with turbine blades, would be negligible.

Because the Project Site and surrounding area (i.e., a 10-mile buffer around the Project Site) receives little use by eagles and is not the core territory of any eagles, the chance for electrocution is low. Eagles are not anticipated to be electrocuted from overhead transmission lines due to low occurrence of this species using the Campo Corridor.

Guideline C (County-Designated Special-Status Species)

Special-Status Plant Species (County List C and D Species)

Project

There would be no direct impacts to County List C plant species resulting from implementation of the Boulder Brush Facilities. Potential impacts to County List D species, including Colorado Desert larkspur within the Boulder Brush Corridor, and Payson's jewelflower, Peninsular spineflower (*Chorizanthe leptotheca*), and pride-of-California (*Lathyrus splendens*) within the Campo Corridor, are considered less than significant per the County Guidelines because the Project would not impact the long-term survival of these plants.

Boulder Brush Facilities

Potential impacts to County List D species within the Boulder Brush Corridor would include Colorado Desert larkspur (List D, 46 of 82 impacted) because of their removal as part of development of the Boulder Brush Facilities. Impacts to these species are considered **less than significant** per the County Guidelines because of the low sensitivity status (plants of limited distribution and that are uncommon, but not presently rare or endangered) and low number of individuals being impacted compared to its overall distribution in eastern San Diego County. No County List C species were observed within the Boulder Brush Corridor.

Campo Wind Facilities

Potential impacts to County List D species within the Campo Corridor would include Payson's jewelflower (List D), Peninsular spineflower (List D), and pride-of-California (List D) because of their removal as part of development of the Campo Wind Facilities. Impacts to these species are considered **significant and unavoidable** per the County Guidelines (see **Impact BI-B**).

Special-Status Wildlife Species (County Group 2 Species)

Project

County Group 2 special-status wildlife species were observed either directly or indirectly (e.g., scat, tracks), or have a high potential to occur within the Project. Loss of Group 2 special-status wildlife species that are not CDFW SSC wildlife species due to development of the Project would be less than significant because these species occur within a variety of habitats and through wide geographic, topographic, and elevation ranges where there are an abundance of these species in the region.

Boulder Brush Facilities

The following County Group 2 special-status wildlife species were observed either directly or indirectly (i.e., scat, tracks), or have a high potential to occur, within the Boulder Brush Corridor: Coronado skink, San Diego ringneck snake, rosy boa, California horned lark, merlin, barn owl, western bluebird, mule deer, cougar, and small-footed myotis. The Figure 2.3-3 series show the impacts in relation to the special-status wildlife observations mapped within the Boulder Brush Corridor. Six additional Group 2 species were observed or have a high potential to occur and are CDFW SSCs: San Diegan tiger whiptail, Blainville's horned lizard, coast patch-nosed snake, San Diego black-tailed jackrabbit, and San Diego desert woodrat. Loss of Group 2 special-status wildlife species that are not CDFW SSC wildlife species due to development of the Boulder Brush Facilities would be **less than significant** because these species occur within a variety of habitats and through wide geographic, topographic, and elevation ranges where there are an abundance of these species in the region.

Campo Wind Facilities

The following County Group 2 special-status wildlife species were observed either directly or indirectly (i.e., scat, tracks), or have a high potential to occur, within the Campo Corridor: Coronado skink, San Diego ringneck snake, rosy boa, California horned lark, merlin, barn owl, western bluebird, mule deer, cougar, and small-footed myotis. Loss of Group 2 special-status wildlife species that are not CDFW SSC wildlife species due to development of the Campo Wind Facilities would be l**ess than significant** because these species occur within a variety of habitats and through wide geographic, topographic, and elevation ranges where there are an abundance of these species in the region.

Guideline D (Arroyo Toad)

Project

No arroyo toads have been incidentally detected on the Project Site and, due to the lack of suitable habitat, are not expected to occur on the Project Site. Surveys conducted in 2010 within the Reservation Boundary were negative for arroyo toad. Therefore, no impact to arroyo toad would occur as a result of Project implementation.

Boulder Brush Facilities

Arroyo toads are not known to occur in this area and have not been documented in the USGS 7.5-minute quadrangles, Live Oak Springs and Sombrero Peak, which overlap the Boulder Brush Corridor (CDFW 2018a). Although arroyo toad is known to occur within quadrangles surrounding the Boulder Brush Corridor (CDFW 2018a), the Boulder Brush Corridor lacks suitable habitat for this species, such as perennial or intermittent stream channels that support regular flows. The closest California Natural Diversity Database occurrence is approximately 8.5 miles west along Kitchen Creek within Fred Canyon and the closest USFWS occurrence is approximately 10.2 miles southwest of the Boulder Brush Corridor along Cottonwood Creek (CDFW 2018a; USFWS 2018). **No impact** to arroyo toad would occur as a result of the Boulder Brush Facilities.

Campo Wind Facilities

The discussion above relating to the Project and the Boulder Brush Facilities apply also to the Campo Corridor. Results for the focused arroyo toad surveys conducted within the Campo Corridor in 2010 were negative (AECOM 2010). The closest known arroyo toad occurrences to the Campo Corridor are located approximately 5.5 miles west of the Campo Corridor in the Cottonwood Creek area (USFWS 2018). There are no records of arroyo toad east of the Campo Corridor (USFWS 2018; CDFW 2018a), and the closest watersheds supporting arroyo toad are the Morena Reservoir–Cottonwood Creek (HUC 180703050103) and Kitchen Creek–Cottonwood Creek (HUC 180703050102) watersheds, approximately 11 miles west and 26 miles south of the Campo Corridor, respectively. **No impact** to arroyo toad would occur as a result of the Campo Wind Facilities.

Guideline E (Golden Eagle)

Project

Golden eagles were observed flying over the Project Area during surveys in 2018 and 2019. No active nests are known to occur within 4,000 feet of the Project Area. Golden eagles can be sensitive to changes in their environment (e.g., wind farms). Madders (2009) describes a home

range use change in a pair of resident golden eagles after a wind farm was constructed in their territory. A portion of the Project would be located in the vicinity of existing wind turbines, which would likely deter golden eagle from utilizing portions of the Project Area. Madders (2009) also indicates that it is unlikely that golden eagles would nest within the immediate vicinity (i.e., 500 meters or 1,640 feet) of wind turbines, likely discouraging eagles from establishing or occupying nests in the surrounding area. However, as described above, there are no suitable large trees or cliffs present for nesting within the Project Area; therefore, this species is not expected to nest within the Project Site. Based on the low frequency that golden eagles appear to fly over the Project Area, the Project Area appears to be at the very fringe of individual eagle territories or use areas, and likely mostly represent brief exploratory searches. Low recorded occurrence combined with existing turbines and no active or likely nesting in the vicinity indicates that overall, the Project would have a **less-than-significant impact** to golden eagle.

Boulder Brush Facilities

A golden eagle was observed flying adjacent to the Boulder Brush Corridor once during the 2018 Quino checkerspot butterfly surveys. The closest suitable golden eagle nesting habitat is located approximately 5.5 miles east of the Boulder Brush Corridor in the Jacumba Mountains where there may be rocky outcrops suitable for nesting, and where this species has been documented (USFWS 2018). There are no golden eagle nests within the Boulder Brush Corridor. The nearest active golden eagle nest (e.g., nesting behavior documented) to the Boulder Brush Corridor is approximately 5.5 miles to the east in the Carrizo Gorge area of the Jacumba Mountains. The location was last noted as active in February 2012 based on confidential data provided by USFWS (Dietsch 2018). This species has potential to forage over the Boulder Brush Corridor, but there are no suitable nesting areas within 4,000 feet of the Boulder Brush Corridor. Therefore, no impacts to nesting habitat would occur as a result of the Boulder Brush Facilities.

Although one golden eagle was observed flying over the Boulder Brush Corridor, focused all-day eagle surveys (which were conducted on site in May/June and October/November 2018) and weekly 30-minute point counts (September 2017 through September 2019) did not record any golden eagle occurrences, indicating that this species does not frequent the Boulder Brush Corridor. Possible foraging habitat for golden eagle within the Boulder Brush Corridor includes more open communities like big sagebrush scrub, disturbed habitat, emergent wetland, montane buckwheat scrub, semi-desert chaparral, wildflower field, unvegetated stream channels, and open coast live oak woodland. There are 141.5 acres of potential foraging habitat, of which 69.8 acres temporarily or permanently impacted by Boulder Brush Facilities development within the Boulder Brush Corridor. The USFWS and BLM determined through the Desert Renewable Energy Conservation Plan process that impacts to 20% of an eagle territory might cause “take” of an individual or pair. On the small side, home ranges are around 12,000 acres in size, so 20% would equate to 2,400 acres. Even cumulatively in this area, there would not be that much impact (2,400

acres or more) on foraging habitat, so the assessment would be a less than significant finding. Further, electrocution from power lines has some potential to cause injury or mortality of golden eagle individuals; however, the USGS biotelemetry data suggests that the Boulder Brush Corridor and surrounding area receives little use by eagles and is not the core territory of any eagles; Additionally, the Boulder Brush Facilities will comply with Avian Power Line Interaction Committee (APLIC) standards as mentioned above and the chance for collisions/electrocution is very low and potential impacts would be **less than significant**. Therefore, "take" of an eagle or pair could not be attributed to the loss of foraging habitat related to the Boulder Brush Facilities because of the relatively low acreage of foraging habitat loss relative to potential range. Therefore, Boulder Brush Facilities would have a **less-than-significant** impact to golden eagle.

Campo Wind Facilities

There are no golden eagle nests within the Campo Corridor, nor within 4,000 feet of the Campo Corridor. Therefore, the Campo Wind Facilities would not result in direct impacts to golden eagle nests. The nearest active golden eagle nest (e.g., nesting behavior documented) to the Campo Corridor is approximately 7 miles to the east in the Carrizo Gorge area of the Jacumba Mountains. As shown in Figures 4-4a through 4-4n of Appendix D, the Campo Corridor appears to be at the very fringe of their individual territories or use areas, and likely mostly represent brief exploratory searches. This data suggests that the Project Site and surrounding area (i.e., 10 mile buffer around the Project Site) receives little use by eagles and is not the core territory of any eagles. The location was last noted as active in February 2012, based on confidential data provided by USFWS (Dietsch 2018). This species has potential to forage over the Campo Corridor. Nine golden eagles were observed flying over the Reservation Boundary during the 2017 through 2019 surveys (see Section 2.3.1.6) (Figure 4-2 series). In total, as of September 2019, eagles were observed flying over the Reservation Boundary for approximately 15 of more than 131,600 minutes during the 2017–2019 all-day eagle surveys and avian point-count surveys, indicating that this species does frequent the Campo Corridor. The loss of foraging habitat from the Campo Wind Facilities (or cumulatively in the area) would not amount to 2,400 acres or more, as such the assessment would be a less than significant finding. Certainly, "Take" of an eagle or pair could not be attributed to the loss of foraging habitat related to the Campo Wind Facilities because of the relatively low acreage of foraging habitat loss relative to potential range. Campo Wind Facilities would have a **less-than-significant** impact to golden eagle.

Guideline F (Raptor Foraging Habitat)

Project

The Project Site (2,520 acres) supports foraging habitat for raptors. The following vegetation communities are considered suitable raptor foraging habitat within the Boulder Brush Corridor and the Campo Corridor: big sagebrush scrub (including disturbed), montane buckwheat scrub, granitic

chamise chaparral, granitic northern mixed chaparral, red shank chaparral, semi-desert chaparral, emergent wetland, wildflower field, unvegetated stream channel, southern arroyo willow riparian forest, and coast live oak woodland (including open and dense forms). In addition, freshwater marsh, mulefat scrub, non-native grassland, broadleaf-dominated, scrub oak chaparral, southern coast live oak riparian forest, southern willow scrub, upper Sonoran subshrub scrub, and valley Sacaton grassland also occur on the Reservation and provide suitable foraging habitat.

Project impacts to foraging habitat would be approximately 916.5 acres. Per the County guidelines, impacts to raptor foraging habitat within the Boulder Brush Corridor would be **a significant impact** because more than 5% of the raptor foraging habitat on the Project Site would be impacted (**Impact BI-8**). Impacts to raptor foraging habitat within the Campo Corridor would be less than significant because less than 5% of the raptor foraging habitat on the Project Site would be impacted.

Boulder Brush Facilities

Impact BI-8: Permanent Impacts to Raptor Foraging Habitat

Foraging habitat for raptors is present throughout the Boulder Brush Corridor, as well as the overall Boulder Brush Boundary (approximately 2,000 acres). The following vegetation communities are considered suitable raptor foraging habitat within the Boulder Brush Corridor: big sagebrush scrub, emergent wetland, disturbed habitat, granitic chamise chaparral, granitic northern mixed chaparral, montane buckwheat scrub, red shank chaparral, semi-desert chaparral, wildflower field, unvegetated stream channel, southern arroyo willow riparian forest, and coast live oak woodland.

Disturbances associated with construction of the Boulder Brush Facilities within the Boulder Brush Corridor are expected to be approximately 130 acres. The amount of impact (approximately 130 acres; 6%) is relatively small compared to available habitat within the overall Boulder Brush Boundary. Per the County guidelines, impacts to raptor foraging habitat within the Boulder Brush Corridor would be **potentially significant** because more than 5% of the raptor foraging habitat within the Boulder Brush Boundary would be impacted (**Impact BI-8**).

Campo Wind Facilities

Impact BI-G: Permanent Impacts to Raptor Foraging Habitat

Foraging habitat for raptors is present throughout the Campo Corridor (2,200 acres), as well as the overall Reservation Boundary (16,000 acres). The following vegetation communities are considered suitable raptor foraging habitat within the Campo Corridor: coast live oak woodland (including open and dense forms), disturbed habitat, emergent wetland, freshwater marsh, granitic chamise chaparral, granitic northern mixed chaparral, montane buckwheat scrub, mulefat scrub, non-native grassland, non-native grassland broadleaf-dominated, red shank chaparral, scrub oak chaparral, southern coast live oak riparian forest, southern willow scrub, upper Sonoran subshrub scrub, unvegetated stream channel, and valley Sacaton grassland.

Disturbances associated with construction of the Campo Wind Facilities would result in impacts to 785.67 acres of foraging habitat, approximately 4.9% of the Reservation Boundary. Per the County guidelines, impacts to raptor foraging habitat within the Reservation Boundary would be **less than significant** because less than 5% of the raptor foraging habitat on the Reservation, as well as the entire Project Site, would be impacted.

Guideline G (Core Wildlife Area)

Project

The Boulder Brush Corridor qualifies as a County-defined Core Wildlife Area, however the Campo Corridor is not subject to County-defined Core Wildlife Area. Wildlife movement within the Boulder Brush and Campo Corridors is not restricted to a specifically defined wildlife corridor. Wildlife can move throughout the Boulder Brush and Campo Corridors. Further, the Project Site is part of a larger contiguous area composed of private and public lands which contribute to, or are adjacent to, the Core Wildlife Area. Although construction of the Project would temporarily impact areas where wildlife may generally move through, it is not anticipated to hinder wildlife movement through the surrounding landscapes. Construction and operation of the Project is not anticipated to constrain a wildlife movement corridor within the region. Therefore, the Project is not anticipated to impact long-term wildlife movement or viability within the Project Site or throughout the larger landscape.

Boulder Brush Facilities

Although the Boulder Brush Corridor qualifies as a County-defined Core Wildlife Area, the Boulder Brush Corridor does not serve as a defined wildlife corridor. The Tule Wind project is located east and north of the Boulder Brush Corridor and includes wind turbines and associated access roads; however, the turbines do not present a movement barrier to terrestrial wildlife species since their footprint is small and wildlife can still move through these areas uninterrupted. Construction and operation of the Boulder Brush Facilities is not anticipated to constrain a wildlife movement corridor within the region since permanent Boulder Brush Facilities structures (gen-tie line support poles, high-voltage substation, and switchyard) allow for access around/between them. Therefore, the Boulder Brush Facilities are not anticipated to impact long-term wildlife movement or viability within the Boulder Brush Facilities or throughout the larger landscape. In addition, viable populations of special-status wildlife species are not limited to the Boulder Brush Corridor alone. As such, impacts to core wildlife area would be **less than significant.**

Campo Wind Facilities

The Campo Corridor is not subject to County-defined Core Wildlife Area and does not serve as a defined wildlife corridor. Implementation of the Campo Wind Facilities is not anticipated to constrain a wildlife movement corridor within the region. The analysis and conclusions contained in the EIS are hereby incorporated by reference. The Campo Wind Facilities are not anticipated to impact long-term wildlife movement or viability within the Campo Wind Facilities or throughout the larger landscape. In addition, viable populations of special-status wildlife species are not limited to the Campo Corridor alone. As such, impacts to core wildlife area would be **less than significant.**

Guideline H (Indirect Impacts)

Special-Status Plant Species

Project

Potential temporary indirect and permanent indirect impacts resulting from Project construction activities could affect special-status plant species. Potential temporary indirect and permanent indirect impact to County List A and B sensitive plant species within the Project Site would be **potentially significant** (**Impact BI-9**, **Impact BI-10**, **Impact BI-H**, and **Impact BI-I**).

Boulder Brush Facilities

Impact BI-9: Temporary Indirect Impacts to Special-Status Plant Species

Construction of the Boulder Brush Facilities has the potential to result in temporary indirect impacts to sensitive plant species. The temporary indirect impacts to vegetation communities described in Section 2.3.3.3, Riparian Habitat or Sensitive Natural Communities, can also affect sensitive plants. The indirect impacts analyzed in Section 2.3.3.3 include the following potential indirect impacts described in the County's *Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources* (County of San Diego 2010a): increased human access, introduction of introduction of pests or exotic species, altering natural drainage, and increasing noise and/or nighttime lighting. Potential indirect impacts are also analyzed in terms of their potential to affect the special-status plant species. Potential temporary indirect impact to County List A and B special status plant species within the Boulder Brush Corridor would be **potentially significant** (**Impact BI-9**). Potential temporary indirect impacts that could affect special-status plants that occur near the Boulder Brush Facilities development footprint are described in detail below.

Increased Human Access. Increased human access during construction could result in the potential for trampling of plants outside of the development footprint, as well as soil compaction, and could affect the viability of plant communities. Trampling can alter the ecosystem, creating gaps in

vegetation and allowing exotic, non-native plant species to become established, leading to soil erosion. Trampling may also affect the rate of rainfall interception and evapotranspiration, soil moisture, water penetration pathways, surface flows, and erosion. Increased human activity increases the risk for damage to special-status plants.

Increased Predation or Competition from Domestic Animals. No domestic animals will be present on site related to the Boulder Brush Facilities during construction activities; therefore, this indirect impact is not addressed in further sections of this report.

Pests or Exotic Species. Invasive plant species that thrive in edge habitats are a well-documented problem in Southern California and throughout the United States. Development could also fragment native plant populations, which may increase the likelihood of invasion by exotic plants due to the increased interface between natural habitats and developed areas. Bossard et al. (2000) list adverse effects of non-native species in natural open areas, including that exotic plants compete for light, water, and nutrients, and can create a thatch that blocks sunlight from reaching smaller native plants. Exotic plant species may alter habitats and displace native species over time, leading to extirpation of native plant species, unique vegetation communities, and subsequently suitable habitat for special-status wildlife species. The introduction of non-native, invasive animal species could negatively affect native species that may be pollinators of or seed dispersal agents for special-status plants.

Increasing Noise and/or Nighttime Lighting. Noise would not affect special-status plants. Changes in natural light conditions can influence the photosynthetic rate and also strongly impacts the development of defense traits in plants (Yamawo and Hada 2010). Lighting associated with possible nighttime work would be limited to vehicle deliveries and not expected to affect special-status plants.

Altering Natural Drainage. There would be temporary impacts to non-wetland waters and riparian habitat. Construction could result in hydrologic and water-quality-related impacts adjacent to, and downstream of, the construction area. Hydrologic alterations include changes in flow rates and patterns in streams, which may affect adjacent and downstream special-status plants. Direct impacts can also remove special-status plants and increase runoff from roads and other paved surfaces, resulting in increased erosion and transport of surface matter into vegetation communities. Altered erosion, increased surface flows, and underground seepage can allow for the establishment of non-native plants. Changed hydrologic conditions can also alter seed bank characteristics and modify habitat for ground-dwelling fauna that may disperse seed.

Generation of Fugitive Dust. Excessive dust can decrease the vigor and productivity of special-status plants through effects on light, penetration, photosynthesis, respiration, transpiration, increased penetration of phytotoxic gaseous pollutants, and increased incidence of pests and diseases.

Alteration of Natural Fire Regime. Shorter-than-natural fire return intervals can preclude recovery of the native vegetation between fires, weaken the ecological system, allow for invasion of exotic species, and in some cases, result in permanent transition of the vegetation to non-native communities such as annual grassland and weedy communities (Keeley 1987; Malanson and O'Leary 1982; O'Leary et al. 1992). If the natural fire regime is suppressed, longer-than-natural fire return intervals can result in excessive buildup of fuel loads so that when fires do occur, they are catastrophic. Unnaturally long fire intervals can also result in senescence of plant communities, such as chaparral, that rely on shorter intervals for rejuvenation.

Construction is anticipated to require up to 9 months to complete. An average daily peak of 202 workers would be involved in construction of the Project. The following issues have been identified as potential risks of fire ignition associated with particular construction activities: (1) vegetation clearing for access roads, gen-tie line pole locations, and the high-voltage substation and switchyard sites; (2) off-road vehicle use could cause an ignition (e.g., catalytic converter, faulty brakes, etc.); (3) idling or parked vehicles and equipment in areas of grass and other vegetation; (4) hot work activities conducted during a Red Flag Warning[4]; (5) construction waste that has accumulated on site associated with electrical equipment could create a fire hazard and shall be contained within metal containers; and (6) operation of generators, pumps, or other equipment capable of producing sparks or exhaust heat to cause ignition.

Chemical Pollutants. Erosion and chemical pollution (releases of fuel, oil, lubricants, paints, release agents, and other construction materials) may affect special-status plants. The use of chemical pollutants can decrease the number of plant pollinators, increase the existence of non-native plants, and cause damage to and destruction of native plants. No herbicides would be used during construction.

Impact BI-10: Permanent Indirect Impacts to Special-Status Plant Species

Permanent indirect impacts that could affect special-status plant species include generation of fugitive dust, chemical pollutants, non-native invasive species, and alteration of the natural fire regime. Special-status plant species within the Boulder Brush Corridor could be impacted by permanent indirect impacts such fugitive dust, changes in hydrology, and the introduction of chemical pollutants (including herbicides). This potential permanent indirect impact to County List A and B special-status plant species on Boulder Brush Corridor would be **potentially significant** (**Impact BI-10**). These potential indirect impacts are discussed as follows.

[4] The National Weather Service may issue Red Flag Warnings (RFW) at any time when humidity and wind conditions meet pre-determined thresholds that would promote fire ignition and spread. Because the majority of acreage burned in California occurs during RFW weather conditions, certain construction activities, such as hot work, would be limited to low fire hazard, non-hot work, until the RFW has been lifted.

Increased Human Access. An increased human population increases the risk for potential damage to habitat and special-status plants. Although, implementation of the Boulder Brush Facilities would necessitate maintenance of associated roads and facilities, maintenance activities are very limited within the Boulder Brush Corridor and the potential for increased risk is low. The Boulder Brush Facilities would not provide new or additional public access roads or gates.

Increased Predation or Competition from Domestic Animals. No domestic animals are expected to be present on site related to the Boulder Brush Facilities during operations and maintenance activities; therefore, this indirect impact is not addressed in further sections of this report.

Pests or Exotic Species. Invasive plant species that thrive in edge habitats are a well-documented problem in Southern California and throughout the United States. Development could also fragment native plant populations, which may increase the likelihood of invasion by exotic plants due to the increased interface between natural habitats and developed areas. Bossard et al. (2000) list adverse effects of non-native species in natural open areas, including that exotic plants compete for light, water, and nutrients, and can create a thatch that blocks sunlight from reaching smaller native plants. Exotic plant species may alter habitats and displace native species over time, leading to extirpation of native plant species, unique vegetation communities, and subsequently suitable habitat for plant and special-status wildlife species. The introduction of non-native, invasive animal species could negatively affect native species that may be pollinators of or seed dispersal agents for plants within sensitive vegetation communities. Landscaping stock could bring in Argentine ants or other pests that could compete with native wildlife. However, landscaping is not proposed as part of the Boulder Brush Facilities.

Altering Natural Drainage. The Boulder Brush Facilities would result in permanent impacts to non-wetland waters. Hydrologic alterations include changes in flow rates and patterns in streams, which may affect adjacent and downstream special-status plants. Water-quality impacts include erosion, increased turbidity, and excessive sedimentation. Direct impacts can also remove native vegetation and increase runoff from roads and other paved surfaces, resulting in increased erosion and transport of surface matter into vegetation communities. Altered erosion, increased surface flows, and underground seepage can allow for the establishment of non-native plants. Changed hydrologic conditions can also alter seed bank characteristics and modify habitat for ground-dwelling fauna that may disperse seed.

Increasing Noise and/or Nighttime Lighting. Noise would not affect special-status plants. Some localized security-related lighting may be required during operation. Changes in natural light conditions can influence the photosynthetic rate and also strongly impacts the development of defense traits in plants (Yamawo and Hada 2010). Lighting would conform to County outdoor lighting requirements, and is not expected to affect adjacent special-status plants.

Generation of Fugitive Dust. The effects of fugitive dust on sensitive special-status plants would be the same as the temporary indirect impacts described above.

Habitat Fragmentation. Habitat fragmentation and isolation of plant populations may cause extinction of local populations as a result of two processes: reduction in total habitat area, which reduces effective population sizes; and insularization of local populations, which affects dispersal rates (Wilcove et al. 1986; Wilcox and Murphy 1985). Although these effects are more readily observable in wildlife, there are potential ecological effects, such as changes in pollinator populations, which can result in altered plant community composition and thus adversely affect sensitive vegetation communities. The Boulder Brush Facilities are not anticipated to result in habitat fragmentation for special-status plants within the Boulder Brush Corridor.

Chemical Pollutants. The effects of chemical pollutants on special-status plants would be the same as the temporary indirect impacts described above. During operation and maintenance, herbicides may be used to prevent vegetation from reoccurring around structures. However, weed control treatments shall include all legally permitted chemical, manual, and mechanical methods applied with the authorization of the San Diego County agriculture commissioner. Additionally, the herbicides used during operation and maintenance activities would be contained within the Boulder Brush Facilities development footprint.

Alteration of the Natural Fire Regime. Shorter-than-natural fire return intervals can preclude recovery of the native vegetation between fires, weaken the ecological system, allow for invasion of exotic species, and in some cases, result in permanent transition of the vegetation to non-native communities, such as annual grassland and weedy communities (Keeley 1987; Malanson and O'Leary 1982; O'Leary et al. 1992). If the natural fire regime is suppressed, longer-than-natural fire return intervals can result in excessive buildup of fuel loads so that when fires do occur, they are catastrophic. Unnaturally long fire intervals can also result in senescence of plant communities, such as chaparral, that rely on shorter intervals for rejuvenation.

During operation, the high-voltage substation and switchyard would be unmanned. All monitoring and control functions would be performed remotely. Routine O&M would require a single pickup truck visiting the high-voltage substation and switchyard periodically for inspections, as well as maintenance/repair trucks visiting the substation several times a year for equipment maintenance. Maintenance activities would include equipment testing, equipment monitoring and repair, and emergency and routine procedures for service continuity. Regular inspection of fuel modification zones around the perimeter of the high-voltage substation and switchyard would be conducted. One 30,000-gallon water tank is proposed for the substation. This on-site fire prevention infrastructure would provide immediate resources for firefighting.

Campo Wind Facilities

Impact BI-H: Temporary Indirect Impacts to Special-Status Plant Species

Construction of the Campo Wind Facilities has the potential to result in temporary indirect impacts to sensitive plant species. Potential temporary indirect impacts to special-status plant species in the Campo Corridor would primarily result from construction activities and could include impacts related to or resulting from increased human access, introduction of pests or exotic species, altering natural drainage, increasing noise and/or nighttime lighting, generation of fugitive dust, the introduction of chemical pollutants (including herbicides), and alteration of the natural fire regime. This potential temporary indirect impact to County List A and B plant species within the Campo Corridor would be potentially significant (**Impact BI-H**).

Impact BI-I: Permanent Indirect Impacts to Special-Status Plant Species

Permanent indirect impacts that could affect special-status plant species include generation of fugitive dust, chemical pollutants, non-native invasive species, and alteration of the natural fire regime. Special-status plant species within the Campo Corridor could be impacted by permanent indirect impacts such fugitive dust, changes in hydrology, and the introduction of chemical pollutants (including herbicides). This potential permanent indirect impact to County List A and B plant species within the Campo Corridor would be **potentially significant** (**Impact BI-I**).

Special-Status Wildlife Species

Project

Temporary indirect impacts to avian foraging and wildlife access to foraging, nesting, or water resources within the Project Site would primarily result from construction activities limiting access to those resources. Permanent (operation-related) indirect impacts could result from the proximity of the Project to sensitive vegetation communities after construction, including impacts related to operation and maintenance. The indirect impacts below include the following potential indirect impacts described in the County's *Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources* (County of San Diego 2010a). Temporary indirect impacts to avian and wildlife access to foraging, nesting, or water resources as a result of Project implementation would be **potentially significant** (**Impact BI-11, Impact BI-12, Impact BI-J, and Impact BI-K**).

Boulder Brush Facilities

Impact BI-11: Temporary Indirect Impacts to Special-Status Wildlife Species

Potential indirect impacts as described in the County's *Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources* (County of San Diego 2010a) include: increased human access, increased predation or competition from introduction of pests or exotic species, altering natural drainage, and increasing noise and/or nighttime lighting. Additional potential indirect impacts are also analyzed in terms of their potential to affect special-status wildlife species. Temporary indirect impacts to avian foraging and wildlife access to foraging, nesting, or water resources resulting from construction of the Boulder Brush Facilities would be **potentially significant** (**Impact BI-11**). These potential impacts are described in detail below.

Increased Human Access. Due the nature of such activities including the added presence of an increased number of humans in an area, construction activities can temporarily deter wildlife from using habitat areas near active construction. In addition, the Boulder Brush Facilities may increase the potential for vehicle collisions with wildlife.

Increased Predation or Competition from Domestic Animals. No domestic animals will be present on site as a result of the Project.

Pests or Exotic Species. Trash from construction-related activities could attract invasive predators such as ravens and coyotes that could impact the wildlife species within the Boulder Brush Corridor.

Increasing Noise and/or Nighttime Lighting. Construction-related noise could occur from equipment used during vegetation clearing and construction of the Boulder Brush Facilities. Noise impacts can have a variety of indirect impacts on wildlife species, including increased stress, weakened immune systems, altered foraging behavior, displacement due to startle, degraded communication with conspecifics (e.g., masking), damaged hearing from extremely loud noises, and increased vulnerability to predators. The impact of noise on wildlife differs from species to species, and is dependent on the source of the noise (e.g., vehicle traffic versus blasting) and the decibel level, duration, and timing. Land within the Boulder Brush Boundary has historically been subject to off-highway vehicle use, which Brattstrom and Bondello (1983) concludes has significant impacts on species such as kangaroo rats (Dipodomys spp.), desert iguanas (Dipsosaurus dorsalis), and fringe-toed lizards (Uma spp.). Therefore, it is likely that species sensitive to noise may not utilize the area given the off-highway vehicle use. Numerous 'No Trespassing' signs have been posted at locations along the Boulder Brush Boundary to deter off-highway vehicle use by the public.

Construction noise would be generated by workers commuting to and from the job site; by construction-material deliveries; and, by the use of construction equipment during site preparation, grading, and construction activities. Although nearby off-site areas would be exposed to elevated

construction noise levels, the exposure would be short term, and would cease upon construction. While typical construction activities would occur between 7:00 a.m. and 7:00 p.m., Monday through Friday, construction might occasionally occur during the night and/or on Saturdays and Sundays to enable deliveries or other activities. Lighting associated with possible nighttime work would be limited and directed downward and away from natural vegetation communities; therefore, it is not expected to affect adjacent habitat for wildlife species.

Altering Natural Drainage. Changed hydrologic conditions can alter seed bank characteristics and modify habitat for ground-dwelling fauna that may disperse seed.

Generation of Fugitive Dust. Dust and applications for fugitive dust control can impact vegetation surrounding the limits of grading, resulting in changes in the community structure and function. These changes could result in impacts to suitable habitat for special-status wildlife species.

Chemical Pollutants. Accidental spills of hazardous chemicals could contaminate nearby surface waters and groundwater and indirectly impact wildlife species through altering suitable habitat. Use of pesticides for rodent control could directly or indirectly affect wildlife species, such as raptors that prey on small mammals through secondary poisoning. The Boulder Brush Facilities would not use any pesticides for rodent control or other reasons.

Alteration of the Natural Fire Regime. The effects of altered natural fire regime on special-status wildlife are the same as those described in Section 2.3.3.3. Alterations of plant communities could affect wildlife that relies on those habitat types.

Impact BI-12: Permanent Indirect Impacts to Special-Status Wildlife Species

Permanent (operation-related) indirect impacts could result from the proximity of the Boulder Brush Facilities to sensitive vegetation communities. Potential indirect impacts as described in the County's *Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources* (County of San Diego 2010a) include: increased human access, introduction of pests or exotic species, altering natural drainage, and increasing noise and/or nighttime lighting. Additional potential indirect impacts are also analyzed in terms of their potential to affect special-status wildlife species. Potential temporary indirect impacts to special-status wildlife species within the Boulder Brush Corridor would be **potentially significant** (**Impact BI-12**). These potential impacts are described in detail below.

Increased Human Access. The effects of increased human access on special-status wildlife are similar to what is described in the temporary indirect impacts section above. An increased human population increases the risk for damage to suitable habitat for wildlife species. In addition, increased human activity can deter wildlife from using habitat areas near the Boulder Brush Facilities.

Increased Predation or Competition from Domestic Animals. No domestic animals will be present on site related to the Boulder Brush Facilities.

Pests or Exotic Species. As described in Section 5.1.1 of the BTR (Appendix D), exotic plant species may alter habitats and displace native species over time, leading to extirpation of native plant species, unique vegetation communities, and subsequently suitable habitat for special-status wildlife species. The introduction of non-native, invasive animal species could negatively affect native species that may be pollinators of or seed dispersal agents for plants within sensitive vegetation communities. In addition, trash can attract invasive predators such as ravens and coyotes, in artificially high subsidized numbers, which could disproportionately impact the wildlife species within the Boulder Brush Corridor.

Increasing Noise and/or Nighttime Lighting. The high-voltage substation and 500 kV switchyard are predicted to produce less than 20 dBA L_{eq} at a distance of 13,000 feet from the closest potential noise-sensitive land uses to the south. At this noise level, the transformer noise impact would be considered a less than significant or non-substantial adverse effect. Outdoor nighttime lighting at the high-voltage substation would be kept to the minimum required for security and safety, and all lighting would be hooded, directed downward, and turned off when not required. Some of the perimeter lighting around the high-voltage substation would remain on all night for safety purposes, though shielded and directed towards accesses or signs.

Altering Natural Drainage. Changed hydrologic conditions can alter seed bank characteristics and modify habitat for ground-dwelling fauna that may disperse seed.

Generation of Fugitive Dust. Potential effects of fugitive dust on special-status wildlife are described under temporary indirect impacts above.

Habitat Fragmentation. Habitat fragmentation and isolation of plant populations may cause extinction of local populations as a result of two processes: reduction in total habitat area, which reduces effective population sizes; and insularization of local populations, which affects dispersal rates (Wilcove et al. 1986; Wilcox and Murphy 1985). Although these effects are more readily observable in wildlife, there are potential ecological effects, such as changes in pollinator populations, that can result in altered plant community composition and thus adversely affect sensitive vegetation communities. Habitat fragmentation for wildlife species is not anticipated to result from implementation of the Boulder Brush Facilities.

Chemical Pollutants. The effects of chemical pollutants on sensitive vegetation communities would be the same as the temporary indirect impacts described in Section 5.1.1 of the BTR (Appendix D). During operation and maintenance, herbicides may be used to prevent vegetation from reoccurring around structures. However, chemicals and methods used for weed control

treatments would comply with all applicable regulations. Additionally, the herbicides used during operation and maintenance activities would be contained within the Boulder Brush Corridor.

Alteration of the Natural Fire Regime. The effects of altered natural fire regime on special-status wildlife are the same as those to what is described in the temporary indirect impacts section above. Based on implementation of required fuel modification zones and additional fire protections, it is anticipated that the alterations of the natural fire regime would be to loss of plant communities, which affects wildlife that relies on those habitat types.

Campo Wind Facilities

Impact BI-J: Temporary Indirect Impacts to Special-Status Wildlife Species

Temporary (construction-related) indirect impacts from grading and other construction activities within the Campo Corridor to special-status wildlife species are similar to those described above for Boulder Brush Corridor. Temporary **potentially significant** indirect impacts to special- status wildlife species within the Campo Corridor could occur as a result of increased human access, introduction of pests or exotic species, altering natural drainage, increasing noise and/or nighttime lighting, generation of fugitive dust, chemical pollutants, and alteration of the natural fire regime (**Impact BI-J**).

Impact BI-K: Permanent Indirect Impacts to Special-Status Wildlife Species

Permanent indirect impacts to special-status wildlife species within the Campo Corridor are the same as those described above for the Boulder Brush Corridor. These potential permanent indirect impacts include increased human access, introduction of pests or exotic species, altering natural drainage, increasing noise and/or nighttime lighting, generation of fugitive dust, chemical pollutants, and alteration of the natural fire regime. Potential permanent indirect impacts to special-status wildlife species within the Campo Corridor would be **potentially significant** (**Impact BI-K**).

Guideline I (Burrowing Owl)

Project

Burrowing owl are not known to currently occur between the Jacumba Valley and Otay areas in San Diego County. Therefore, the Project would have **no impacts** to occupied burrowing owl habitat.

Boulder Brush Facilities

No occupied burrowing owl habitat occurs within the Boulder Brush Corridor; therefore, there would be **no impacts** to occupied burrowing owl habitat.

Campo Wind Facilities

No occupied burrowing owl habitat occurs in the Campo Corridor; therefore, there would be **no impacts** to occupied burrowing owl habitat.

Guideline J (Coastal Cactus Wren)

Project

Coastal (San Diego) cactus wren (*Campylorhynchus brunneicapillus sandiegensis*) is not expected to occur within the Project Site. Coastal cactus wren rely on cactus thickets at elevations below 1,500 feet (Unitt 2004). The Project Site is located above 1,500 feet amsl. Because the Project Site is outside of the range for the coastal (San Diego) cactus wren, **no impacts** to occupied coastal cactus wren habitat would occur.

Boulder Brush Facilities

There are no cactus thickets at elevations below 1,500 feet amsl within the Boulder Brush Corridor. Because the Boulder Brush Corridor is outside of the range for coastal (San Diego) cactus wren, **no impacts** to occupied coastal cactus wren habitat would occur.

Campo Wind Facilities

There are no cactus thickets at elevations below 1,500 feet amsl within the Campo Corridor. Because the Campo Corridor is outside of the range for the coastal (San Diego) cactus wren, there would be **no impacts** to occupied coastal cactus wren habitat.

Guideline K (Hermes Copper Butterfly)

Project

The Project Site is not within the known range of Hermes copper butterfly, which is located more than 10 miles to the west, toward Descanso, Jamul, and Potrero (CDFW 2018a). *Rhamnus crocea* is the host plant for Hermes copper butterfly. No *Rhamnus crocea* were observed on the Project Site as discussed below. Therefore, the Project would have **no impacts** to occupied Hermes copper butterfly habitat.

Boulder Brush Facilities

The Boulder Brush Corridor is not within the known range of Hermes copper butterfly and no *Rhamnus crocea* were observed within the Boulder Brush Corridor. Therefore, the Boulder Brush Facilities would have **no impacts** to occupied Hermes copper butterfly habitat.

Campo Wind Facilities

The Campo Corridor is not within the known range of Hermes copper butterfly and no *Rhamnus crocea* were observed within the Campo Corridor. Therefore, the Campo Wind Facilities would have **no impacts** to occupied Hermes copper butterfly habitat.

Guideline L (Sensitive Bird Nesting)

Project

Direct impacts to trees on the Project Site could result in impacts to the nesting success of tree-nesting raptors and ground-nesting raptors as a result of the removal of potential nesting habitat. Impacts to the nesting success of tree- and ground-nesting raptors associated with the loss of suitable nesting habitat would be **potentially significant** (**Impact BI-13** and **Impact BI-L**).

Boulder Brush Facilities

Impact BI-13: Direct Impacts to Active Raptor Nests

Nesting tree habitat within the Boulder Brush Corridor includes coast live oak woodland and southern arroyo willow riparian forest. Direct impacts to trees within the Boulder Brush Corridor could result in impacts to the nesting success of tree-nesting raptors (e.g., Cooper's hawk) as a result of the removal of potential nesting habitat. The Boulder Brush Facilities would result in permanent impacts to approximately 1.1 acres of tree-dominated vegetation (coast live oak woodland and southern arroyo willow riparian forest) and temporary impacts to approximately 4.9 acres of these vegetation types that would likely result in tree removal. As described above, temporary impacts to vegetation resulting from construction are quantified as permanent impacts. Impacts to the nesting success of tree- and ground-nesting raptors associated with the loss of suitable nesting habitat would be **potentially significant** (**Impact BI-13**).

As there are no golden eagle nests within the Boulder Brush Corridor or within 4,000 feet of the Boulder Brush Corridor, **no impact** to golden eagle nests would occur.

Boulder Brush Facilities operation and maintenance activities are not anticipated to affect the nesting opportunities of birds. Least Bell's vireo, southwestern willow flycatcher, and light-footed clapper rail (*Rallus longirostris levipes*) are not expected to nest within the Boulder Brush Corridor due to the lack of suitable habitat; therefore, **no impact** to the nesting success of these protected species would result. The Boulder Brush Corridor is outside of the range, or does not have suitable habitat, for burrowing owl, coastal California gnatcatcher, and coastal cactus wren; therefore, **no impact** to these species would occur.

Refer to Section 2.3.3.2, Guideline H, for a discussion of potential indirect impacts to nesting birds (**Impact BI-8** and **Impact BI-9**). Also, refer to Section 2.3.3.6, Guideline K, for a discussion of impacts to nesting migratory birds (**Impact BI-25**).

Campo Wind Facilities

Impact BI-L: Direct Impacts to Active Raptor Nests

Direct impacts to trees could result in impacts to the nesting success of tree-nesting raptors (e.g., Cooper's hawk and long-eared owl) and ground-nesting raptors (e.g., prairie falcon) as a result of the removal of potential nesting habitat. The Campo Wind Facilities would result in permanent impacts to approximately 21.55 acres of tree-dominated vegetation (coast live oak woodland habitats) and approximately 21.97 acres of potential ground-nesting raptor habitat (emergent wetland and grasslands). Impacts to the nesting success of tree- and ground-nesting raptors associated with the loss of suitable nesting habitat within the Campo Corridor would be **potentially significant** (**Impact BI-L**).

There are no golden eagle nests within the Campo Corridor, nor within 4,000 feet of the Campo Corridor. Therefore, construction and implementation of the Campo Wind Facilities would result in **no impact** to golden eagle nests (refer to Appendix D and the EIS for additional information).

Least Bell's vireo, southwestern willow flycatcher, and light-footed clapper rail are not expected to nest within the Campo Wind Corridor due to the lack of suitable habitat; therefore, **no impact** to the nesting success of these protected species would occur. The Campo Corridor is outside of the range, or does not have suitable habitat, for burrowing owl, coastal California gnatcatcher, and coastal cactus wren; therefore, **no impact** to these species would occur.

Refer to Section 2.3.3.2, Guideline H, for a discussion of potential indirect impacts to nesting (**Impact BI-J** and **Impact BI-K**). Also, refer to Section 2.3.3.6, Guideline K, for a discussion of impacts to nesting migratory birds (**Impact BI-Y**).

2.3.3.3 Riparian Habitat or Sensitive Natural Community

For the purpose of this EIR, the County's Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources (County of San Diego 2010a) and County of San Diego Report Format and Content Requirements: Biological Resources (County of San Diego 2010b) were used to evaluate the direct, indirect, cumulative impact analysis. Each general subject area is broken into more specific County guidelines and lettered accordingly to provide additional clarity on this complex resource topic.

A significant impact would result if:

A project would have a substantial adverse effect on riparian habitat or another sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG [now CDFW] or USFWS.

A. Project-related grading, clearing, construction, or other activities would temporarily or permanently remove sensitive native or naturalized habitat (as listed in Table 5 [of County of San Diego 2010a] excluding those without a mitigation ratio) on or off a project site. This Guideline would not apply to small remnant pockets of habitat that have a demonstrated limited biological value. No de minimus standard is specified under which an impact would not be significant; however, minor impacts to native or naturalized habitat that is providing essentially no biological habitat or wildlife value can be evaluated on a case-by-case basis to determine whether the projected impact may be less than significant. For example, an impact to native or naturalized upland habitat under 0.1 acres in an existing urban setting may be considered less than significant (depending on a number of factors). An evaluation of this type should consider factors including, but not limited to, type of habitat, relative presence or potential for sensitive species, relative connectivity with other native habitat, wildlife species and activity in a project's vicinity, and current degree of urbanization and edge effects in a project's vicinity, etc. Just because a particular habitat area is isolated, for example, does not necessarily mean that impacts to the area would not be significant (e.g., vernal pools). An area that is disturbed or partially developed may provide a habitat "island" that would serve as a functional refuge area "stepping stone" or "archipelago" for migratory species.

B. Any of the following will occur to or within jurisdictional wetlands and/or riparian habitats as defined by U.S. Army Corps of Engineers (USACE), California Department of Fish and Game (CDFG [now CDFW]), and the County of San Diego: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity, and abundance.

C. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of 3 feet or more from historically low groundwater levels.

D. The project would cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing undeveloped lands or other natural habitat areas, to levels that would likely harm sensitive habitats over the long term. The following issues should be addressed in determining the significance of indirect

impacts: increasing human access; increasing predation or competition from domestic animals, pests, or exotic species; altering natural drainage; and increasing noise and/or nighttime lighting to a level above ambient that has been shown by the best available science to adversely affect the functioning of sensitive habitats.

E. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands. If the project is subject to the Resource Protection Ordinance (RPO), buffers of a minimum of 50 feet and a maximum of 200 feet to protect wetlands are required based on the best available science available to the County at the time of adoption of the ordinance. The following examples provide guidance on determining appropriate buffer widths:

- A 50-foot wetland buffer would be appropriate for lower quality RPO-wetlands where the wetland has been assessed to have low physical and chemical functions, vegetation is not dominated by hydrophytes, soils are not highly erosive, and slopes do not exceed 25%.
- A wetland buffer of 50 to 100 feet is appropriate for moderate- to high-quality RPO-wetlands that support a predominance of hydrophytic vegetation or wetlands within steep slope areas (greater than 25%) with highly erosive soils. Within the 50- to 100-foot range, wider buffers are appropriate where wetlands connect upstream and downstream, where the wetlands serve as a local wildlife corridor, or where the adjacent land use(s) would result in substantial edge effects that could not be mitigated.
- Wetland buffers of 100 to 200 feet are appropriate for RPO-wetlands within regional wildlife corridors or wetlands that support significant populations of wetland-associated sensitive species, or where stream meander, erosion, or other physical factors indicate a wider buffer is necessary to preserve wildlife habitat.
- Buffering of greater than 200 feet may be necessary when an RPO-wetland is within a regional corridor or supports significant populations of wetland-associated sensitive species and lies adjacent to land use(s) that could result in a high degree of edge effects within the buffer. Although the RPO stipulates a maximum of 200 feet for RPO-wetland buffers, actions may be subject to other laws and regulations (such as the Endangered Species Act) that require greater wetland buffer widths.

Analysis

Guideline A (Sensitive Native or Naturalized Habitat Removal)

Project

The Project would result in impacts to native vegetation communities and land cover types, including impacts to sensitive vegetation communities because development would involve the removal of vegetation. The direct loss of sensitive vegetation communities due to Project construction would be **potentially significant** (**Impact BI-14** and **Impact BI-M**). Construction-related temporary direct impacts to vegetation communities could result from clearing, trampling, or grading of vegetation outside of the Project development footprint in the absence of avoidance measures. This would result in **potentially significant** impacts to sensitive vegetation within the Boulder Brush Corridor (**Impact BI-15**) and the Campo Corridor (**Impact BI-N**).

Boulder Brush Facilities

Impact BI-14: Direct Impacts to Sensitive Vegetation Communities within the Boulder Brush Corridor

The Boulder Brush Corridor is approximately 320 acres. Construction of the Boulder Brush Facilities would result in impacts to approximately 130.9 acres of native vegetation communities and land cover types, of which approximately 122.8 acres are considered sensitive vegetation communities (Table 2.3-1). Direct impacts would be associated with construction of the Boulder Brush Facilities include impacts from road grading, high-voltage substation, switchyard, Off-Reservation (i.e., anything outside of the Reservation Boundary) gen-tie line installation, and required fuel modification zones. Areas temporarily impacted by construction of these facilities would be revegetated with an approved seed mix following construction. In addition, during construction of the Off-Reservation gen-tie line, a 12-foot-wide temporary construction access which crosses Tule Creek (Figure 2.3-3f) would be required to connect the overhead electrical lines between poles. This construction access would be used only temporarily during construction, would not require any grading, and would not be used for permanent access. No gravel or pavement would be placed within the creek. Following construction, disturbance along this 12-foot wide temporary construction access that crosses Tule Creek would be restored to pre-Project conditions. Of the approximately 122.8 acres of potential sensitive habitat impacts within the Boulder Brush Corridor, approximately 38.3 acres would be permanently impacted by the placement of structures and roads, and approximately 84.9 acres would be temporarily impacted and subsequently revegetated following construction. However, the Boulder Brush Facilities does not include a revegetation plan with enforceable success criteria, as temporary impacts are considered permanent under County policy. Overall, the direct loss of sensitive vegetation communities due to construction of the Boulder Brush Facilities would be **potentially significant** (**Impact BI-14**). See Figure 2.3-3 series.

Impact BI-15: Direct Impacts to Sensitive Habitat Outside of Boulder Brush Facilities

Construction-related temporary direct impacts to vegetation communities could result from clearing, trampling, or grading of vegetation outside of the Boulder Brush Facilities disturbance footprint in the absence of avoidance measures. These potential impacts could damage vegetation communities and alter their ecosystem, creating gaps in vegetation that allow exotic, non-native plant species to become established, thus increasing soil compaction and leading to soil erosion. This would result in **potentially significant** impacts to sensitive vegetation within the Boulder Brush Corridor (**Impact BI-15**).

Campo Wind Facilities

Impact BI-M: Direct Impacts to Sensitive Vegetation Communities within the Campo Corridor

Construction of the Campo Wind Facilities would result in impacts to approximately 789.25 acres of vegetation communities and cover types (Table 2.3-1) within the Campo Corridor. Approximately 740.45 acres of the 789.25-acre impact would occur to sensitive vegetation communities. These impacts are described in detail in the EIS. Overall, the direct loss of sensitive vegetation communities due to construction of the Campo Wind Facilities would be **significant and unavoidable** (**Impact BI-M**). See Figure 2.3-4, Impacts to Biological Resources – Reservation, in this section, and Figures 5-2a through 5-2bo, Impacts to Biological Resources – Reservation, of Appendix D.

Impact BI-N: Direct Impacts to Sensitive Habitat Outside of Campo Wind Facilities

Construction-related temporary direct impacts to vegetation communities could result from clearing, trampling, or grading of vegetation outside of the Campo Wind Facilities disturbance footprint in the absence of avoidance measures. These potential impacts could damage vegetation communities and alter their ecosystem, creating gaps in vegetation that allow exotic, non-native plant species to become established, thus increasing soil compaction and leading to soil erosion. This potential impact would result in **potentially significant** impacts to sensitive vegetation within the Campo Corridor (**Impact BI-N**).

Guideline B (Jurisdictional Habitat)

Any activity resulting in an adverse change to jurisdictional aquatic resources (i.e., wetlands and riparian habitat under the jurisdiction of ACOE, CDFW, and/or the County) would be significant. As stated in Guideline 4.2.B, an activity is defined as removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity, or abundance.

Project

Temporary direct impacts to jurisdictional aquatic resources within the Boulder Brush Corridor and direct impacts to jurisdictional aquatic resources within the Campo Corridor would result from Project construction activities. Direct impacts from the Project to jurisdictional aquatic resources within the Project Site would be **potentially significant**; **Impact BI-16** and **Impact BI-17** within the Boulder Brush Corridor) **Impact BI-O** and **Impact BI-P** within the Campo Corridor. Potential temporary indirect impacts to jurisdictional aquatic resources are described in the *County's Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources* (County of San Diego 2010a). Potential temporary indirect impacts to jurisdictional aquatic resources resulting from Project construction would be **potentially significant; Impact BI-19** within the Boulder Brush Corridor, and **Impact BI-Q** and **Impact BI-R** within the Campo Corridor.

Boulder Brush Facilities

Impact BI-16: Direct Impacts to Jurisdictional Aquatic Resources

Construction of the Boulder Brush Facilities would result in temporary direct impacts to approximately 0.70 acres of jurisdictional aquatic resources within the Boulder Brush Corridor. These impacts would result from disturbance associated with temporary construction vehicle access across jurisdictional resources. While the temporary impact areas would be revegetated to pre-construction conditions, they would not be managed as part of a long-term management or monitoring plan, and therefore, are considered permanent impacts. In addition, the Boulder Brush Facilities would permanently impact approximately 0.27 acres of regulated jurisdictional aquatic resources resulting from construction activities. Refer to the Figure 2.3-3 series and Table 2.3-6, Impacts to Jurisdictional Wetlands and Waters, in this section. Overall, direct impacts of the Boulder Brush Facilities to jurisdictional aquatic resources within Boulder Brush Corridor would be **potentially significant** (**Impact BI-16**).

Impact BI-17: Direct Impacts to Jurisdictional Habitat Outside of the Boulder Brush Facilities

Improvements to an existing disturbed area that bisects jurisdictional resources are proposed (see Figure 2.3-3 series). Construction-related temporary direct impacts to jurisdictional habitats could result from clearing, trampling, or grading of vegetation outside of the Boulder Brush Facilities disturbance footprint in the absence of avoidance measures. These potential impacts could lead to indirect impacts as well such as erosion and increased exotic species. Therefore, a **potentially significant impact** could result outside of the Boulder Brush Facilities disturbance footprint (**Impact BI-17**).

Impact BI-18: Temporary Indirect Impacts to Jurisdictional Aquatic Resources

Potential temporary indirect impacts to jurisdictional aquatic resources as described in the County's Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources (County of San Diego 2010a) include: increased human access, introduction of pests or exotic species, altering natural drainage, and increasing noise and/or nighttime lighting. Additional potential indirect impacts are also analyzed in terms of their potential to affect the jurisdictional aquatic resources. These potential indirect temporary impacts are described below and would be **potentially significant** (**Impact BI-18**).

Increased Human Access. The effects of increased human access on jurisdictional aquatic features are similar to those described in Section 2.3.3.3 for vegetation communities.

Increased Predation or Competition from Domestic Animals. No domestic animals would be present on site related to the Project.

Pests or Exotic Species. The effects of pests or exotic species on jurisdictional aquatic features are similar to those described in Section 2.3.3.3 for vegetation communities.

Increasing Noise and/or Nighttime Lighting. Noise and lighting would not affect jurisdictional aquatic resources.

Altering Natural Drainage. Construction could result in hydrologic and water-quality-related impacts adjacent to and downstream of the construction area. Hydrologic alterations include changes in flow rates and patterns in streams, which may affect adjacent and downstream vegetation communities. Water-quality impacts include chemical-compound pollution (fuel, oil, lubricants, paints, release agents, and other construction materials), erosion, increased turbidity, and excessive sedimentation. Direct impacts can also remove native vegetation and increase runoff from roads and other paved surfaces, resulting in increased erosion and transport of surface matter into vegetation communities. Altered erosion, increased surface flows, and underground seepage can allow for the establishment of non-native plants. Changed hydrologic conditions can also alter seed bank characteristics and modify habitat for ground-dwelling fauna that may disperse seed.

Generation of Fugitive Dust. Excessive dust can decrease the vigor and productivity of vegetation through effects on light, penetration, photosynthesis, respiration, transpiration, increased penetration of phytotoxic gaseous pollutants, and increased incidence of pests and diseases.

Chemical Pollutants. Erosion and chemical pollution (releases of fuel, oil, lubricants, paints, release agents, and other construction materials) may affect sensitive vegetation communities. The use of chemical pollutants can decrease the number of plant pollinators, increase the existence of non-native plants, and cause damage to and destruction of native plants. No herbicides would be used during construction.

Impact BI-19: Permanent Indirect Impacts to Jurisdictional Aquatic Resources

Permanent indirect impacts could result from the proximity of the Boulder Brush Facilities to jurisdictional aquatic resources after construction, including impacts related to operation and maintenance. Operation and maintenance activities would occur within the Boulder Brush Facilities. Potential indirect impacts described in the County's *Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources* (County of San Diego 2010a) include: increased human access, increased predation or competition from introduction of pests or exotic species, altering natural drainage, and increasing noise and/or nighttime lighting. Additional potential indirect impacts are also analyzed in terms of their potential to affect the jurisdictional aquatic resources. These potential permanent indirect impacts are described below and would be **potentially significant** (**Impact BI-19**).

Increased Human Access. The effects of increased human access on jurisdictional aquatic resources are similar to those described in Section 2.3.3.3 for vegetation communities.

Increased Predation or Competition from Domestic Animals. No domestic animals would be present on site related to the Project.

Pests or Exotic Species. The effects of non-native, invasive plant and animal species on jurisdictional aquatic resources are similar to those described in Section 2.3.3.3 for vegetation communities.

Altering Natural Drainage. The effects of altering natural drainage are the same as to those described in Section 2.3.3.3 for vegetation communities.

Increasing Noise and/or Nighttime Lighting. Noise and lighting would not affect jurisdictional aquatic resources.

Generation of Fugitive Dust. Excessive dust can decrease the vigor and productivity of vegetation through effects on light, penetration, photosynthesis, respiration, transpiration, increased penetration of phytotoxic gaseous pollutants, and increased incidence of pests and diseases.

Chemical Pollutants. The effects of chemical pollutants on sensitive vegetation communities would be the same as the temporary indirect impacts described in Section 2.3.3.2 Guideline H. During operation and maintenance, herbicides may be used to prevent vegetation from reoccurring around structures. However, weed control treatments shall include all legally permitted chemical, manual, and mechanical methods applied with the authorization of the San Diego County agriculture commissioner. Additionally, the herbicides used during operation and maintenance activities would be contained within the Boulder Brush Corridor.

Alteration of the Natural Fire Regime. Shorter-than-natural fire return intervals can preclude recovery of the native vegetation between fires, weaken the ecological system, allow for

invasion of exotic species, and in some cases result in permanent transition of the vegetation to non-native communities such as annual grassland and weedy communities (Keeley 1987; Malanson and O'Leary 1982; O'Leary et al. 1992). If the natural fire regime is suppressed, longer-than-natural fire return intervals can result in excessive buildup of fuel loads so that when fires do occur, they are catastrophic. Unnaturally long fire intervals can also result in senescence of plant communities, such as chaparral, that rely on shorter intervals for rejuvenation. Fire prevention infrastructure, as described in Section 1.2.9, Fire Protection, of this EIR, would provide immediate resources for firefighting.

Campo Wind Facilities

Impact BI-O: Direct Impacts to Jurisdictional Aquatic Resources

The Campo Wind Facilities within the Campo Corridor would result in direct impacts to 1.13 acres (8,839 linear feet) of ephemeral non-wetland waters, less than 0.01 acres (199 linear feet) of intermittent non-wetland waters, and 0.68 acres of riparian habitat (Figure 2.3-4 and the Figure 5-2 series of Appendix D, and Table 2.3-6). Refer to the EIS for information regarding federal jurisdictional waters impacts. Direct impacts to jurisdictional aquatic resources within the Campo Corridor would be **potentially significant** (**Impact BI-O**).

Impact BI-P: Direct Impacts to Jurisdictional Habitat Outside of the Campo Wind Facilities

Construction-related temporary direct impacts to remaining jurisdictional habitats could result from clearing, trampling, or grading of vegetation outside of the Campo Wind Facilities in the absence of avoidance measures. These potential impacts could lead to indirect impacts as well, such as erosion and increased exotic species. This potential impact outside of the Campo Wind Facilities would result in **potentially significant** to jurisdictional habitat on the Campo Corridor (**Impact BI-P**).

Impact BI-Q: Temporary Indirect Impacts to Jurisdictional Aquatic Resources

Potential temporary indirect impacts to jurisdictional resources in the Campo Corridor would primarily result from construction activities and include impacts related to or resulting from the generation of fugitive dust; changes in hydrology resulting from construction, including sedimentation and erosion; and the introduction of chemical pollutants (including herbicides). Standard Best Management Practices would be implemented to reduce these potential indirect impacts. Nonetheless, potential indirect temporary impacts are similar to those described in under Section 2.3.3.3, Guideline D below and would be **potentially significant** (**Impact BI-Q**).

Impact BI-R: Permanent Indirect Impacts to Jurisdictional Aquatic Resources

Permanent indirect impacts could result from the proximity of the Campo Wind Facilities to jurisdictional aquatic resources after construction. Permanent indirect impacts that could affect jurisdictional resources include generation of fugitive dust, chemical pollutants, non-native invasive species, and alteration of the natural fire regime. These potential permanent indirect impacts are similar to those described in under Section 2.3.3.3, Guideline D below and would be **potentially significant** (**Impact BI-R**).

Guideline C (Groundwater)

Project

The Project would require approximately 173 acre-feet (AF) of water over the 14 months of construction (123 AF for Campo Wind Facilities and 50 AF for Boulder Brush Facilities). Water sources during construction would include On- and Off-Reservation facilities such as production wells on the southern end of the Reservation and commercially obtained non-potable water from permitted Off-Reservation purveyors such as Jacumba Community Service District (JCSD), which provides non-potable groundwater for construction or Padre Dam Municipal Water District (PDMWD), which provides recycled water for construction. The O&M facility would require a potable water source for employee uses; estimated water use is approximately 210 gallons per day (gpd). It is anticipated that groundwater sourced from an existing, On-Reservation groundwater well would be used for the Project's operation, otherwise water would be trucked in from JCSD or PDMWD. The O&M building demand is less than a typical single-family home demand and the available groundwater wells have sufficient sustainable yield to supply that demand without reducing the groundwater table levels (Appendix N). Therefore, the Project would have a **less-than-significant impact** to groundwater or groundwater-dependent habitat, such as emergent wetland and southern arroyo willow riparian forest.

Boulder Brush Facilities

The Boulder Brush Facilities would require approximately 50 AF of water during construction and no water would be required for operation, other than refilling the water tanks dedicated to fire support in the event of an emergency. The JCSD or PDMWD have capacity to support these temporary water needs without dropping the groundwater table (Appendix N, Water Supply Assessment). Therefore, the Boulder Brush Facilities would have a **less-than-significant impact** to groundwater or groundwater-dependent habitat.

Campo Wind Facilities

The Campo Wind Facilities would require approximately 123 AF of water during construction. The JCSD or PDMWD have capacity to support these temporary water needs. Additionally, the Campo Wind Facilities could potentially use groundwater from On-Reservation wells during construction. The O&M building within the Campo Corridor would require approximately 210 gallons of water per day, which would be supplied by On-Reservation existing groundwater well(s), see Sections 3.2.3 and 4.2.2 of the EIS (BIA 2019). The O&M building demand is less than a typical single-family home demand and the available groundwater wells have sufficient sustainable yield to supply that demand without reducing the groundwater table levels (Appendix N). Therefore, the Campo Wind Facilities would have a **less-than-significant impact** to groundwater or groundwater-dependent habitat.

Guideline D (Indirect Impacts)

Project

Temporary indirect impacts to sensitive vegetation communities outside of the Project development footprint could primarily result from construction activities described in the County's *Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources* (County of San Diego 2010a). Permanent (operation-related) indirect impacts could result from the proximity of the Project to sensitive vegetation communities after construction, including impacts related to operation and maintenance. These potential impacts would be **potentially significant** within the Boulder Brush Corridor (**Impact BI-20** and **Impact BI-21**) and Campo Corridor (**Impact BI-S** and **Impact BI-T**).

Boulder Brush Facilities

Impact BI-20: Temporary Indirect Impacts to Sensitive Vegetation Communities

Temporary indirect impacts to sensitive vegetation communities outside of the Boulder Brush Facilities could primarily result from construction activities. Potential indirect impacts described in the County's *Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources* (County of San Diego 2010a) include: increased human access, introduction of pests or exotic species, altering natural drainage, and increasing noise and/or nighttime lighting. Additional potential indirect impacts are also analyzed in terms of their potential to affect the vegetation communities. Potential temporary indirect impacts that could affect sensitive vegetation communities that occur near the Boulder Brush Facilities would be **potentially significant** (**Impact BI-20**), and are described in detail under Guideline B above and are described in detail below.

Increased Human Access. Increased human access during construction could result in the potential for trampling of vegetation outside of the development footprint, as well as soil compaction, and could affect the viability of plant communities. Trampling can alter the ecosystem, creating gaps in vegetation and allowing exotic, non-native plant species to become established, leading to soil erosion. Trampling may also affect the rate of rainfall interception and evapotranspiration, soil moisture, water penetration pathways, surface flows, and erosion. Increased human activity increases the risk for damage to sensitive vegetation communities.

Increased Predation or Competition from Domestic Animals. No domestic animals will be present on site related to the Boulder Brush Facilities during construction activities; therefore, this indirect impact is not addressed in further sections of this report.

Pests or Exotic Species. Invasive plant species that thrive in edge habitats are a well-documented problem in Southern California and throughout the United States. Development could also fragment native plant populations, which may increase the likelihood of invasion by exotic plants due to the increased interface between natural habitats and developed areas. Bossard et al. (2000) list adverse effects of non-native species in natural open areas, including that exotic plants compete for light, water, and nutrients, and can create a thatch that blocks sunlight from reaching smaller native plants. Exotic plant species may alter habitats and displace native species over time, leading to extirpation of native plant species, unique vegetation communities, and subsequently suitable habitat for special-status wildlife species. The introduction of non-native, invasive animal species could negatively affect native species that may be pollinators of or seed dispersal agents for plants within sensitive vegetation communities.

Increasing Noise and/or Nighttime Lighting. Noise would not affect vegetation communities. Changes in natural light conditions can influence the photosynthetic rate and also strongly impacts the development of defense traits in plants (Yamawo and Hada 2010). Lighting associated with possible nighttime work would be limited to vehicle deliveries and not expected to affect adjacent vegetation communities.

Altering Natural Drainage. There would be temporary impacts to non-wetland waters and riparian habitat. Construction could result in hydrologic and water-quality-related impacts adjacent to, and downstream of, the construction area. Hydrologic alterations include changes in flow rates and patterns in streams, which may affect adjacent and downstream vegetation communities. Direct impacts can also remove native vegetation and increase runoff from roads and other paved surfaces, resulting in increased erosion and transport of surface matter into vegetation communities. Altered erosion, increased surface flows, and underground seepage can allow for the establishment of non-native plants. Changed hydrologic conditions can also alter seed bank characteristics and modify habitat for ground-dwelling fauna that may disperse seed.

Generation of Fugitive Dust. Excessive dust can decrease the vigor and productivity of vegetation through effects on light, penetration, photosynthesis, respiration, transpiration, increased penetration of phytotoxic gaseous pollutants, and increased incidence of pests and diseases.

Alteration of Natural Fire Regime. Shorter-than-natural fire return intervals can preclude recovery of the native vegetation between fires, weaken the ecological system, allow for invasion of exotic species, and in some cases, result in permanent transition of the vegetation to non-native communities, such as annual grassland and weedy communities (Keeley 1987; Malanson and O'Leary 1982; O'Leary et al. 1992). If the natural fire regime is suppressed, longer-than-natural fire return intervals can result in excessive buildup of fuel loads so that when fires do occur, they are catastrophic. Unnaturally long fire intervals can also result in senescence of plant communities, such as chaparral, that rely on shorter intervals for rejuvenation.

Construction is anticipated to require up to 9 months to complete. An average daily peak of 202 workers would be involved in construction of the Project. The following issues have been identified as potential risks of fire ignition associated with particular construction activities: (1) vegetation clearing for access roads, gen-tie line pole locations, and the high-voltage substation and switchyard sites; (2) off-road vehicle use could cause an ignition (e.g., catalytic converter, faulty brakes, etc.); (3) idling or parked vehicles and equipment in areas of grass and other vegetation; (4) hot work activities conducted during a Red Flag Warning[5]; (5) construction waste that has accumulated on site associated with electrical equipment could create a fire hazard and shall be contained within metal containers; and (6) operation of generators, pumps, or other equipment capable of producing sparks or exhaust heat to cause ignition.

Chemical Pollutants. Erosion and chemical pollution (releases of fuel, oil, lubricants, paints, release agents, and other construction materials) may affect sensitive vegetation communities. The use of chemical pollutants can decrease the number of plant pollinators, increase the existence of non-native plants, and cause damage to and destruction of native plants. No herbicides would be used during construction.

Impact BI-21: Permanent Indirect Impacts to Sensitive Vegetation Communities

Permanent (operation-related) indirect impacts could result from the proximity of the Boulder Brush Facilities to sensitive vegetation communities, including impacts related to operation and maintenance. Operation and maintenance activities would occur within the Boulder Brush Corridor. Potential indirect impacts described in the County's *Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources* (County of

[5] The National Weather Service may issue Red Flag Warnings (RFW) at any time when humidity and wind conditions meet pre-determined thresholds that would promote fire ignition and spread. Because the majority of acreage burned in California occurs during RFW weather conditions, certain construction activities, such as hot work, would be limited to low fire hazard, non-hot work, until the RFW has been lifted.

San Diego 2010a) include: increased human access, introduction of pests or exotic species, altering natural drainage, and increasing noise and/or nighttime lighting. Additional potential indirect impacts are also analyzed in terms of their potential to affect the vegetation communities. These potential impacts would be **potentially significant** (**Impact BI-21**). Each of these potential indirect impacts is discussed under Guideline B above. Each of these potential indirect impacts is discussed as follows.

Increased Human Access. An increased human population increases the risk for potential damage to habitat and vegetation communities. Although, implementation of the Boulder Brush Facilities would necessitate maintenance of associated roads and facilities, maintenance activities are very limited within the Boulder Brush Corridor and the potential for increased risk is low. The Boulder Brush Facilities would not provide new or additional public access roads or gates.

Increased Predation or Competition from Domestic Animals. No domestic animals are expected to be present on site related to the Boulder Brush Facilities during operations and maintenance activities; therefore, this indirect impact is not addressed in further sections of this report.

Pests or Exotic Species. Invasive plant species that thrive in edge habitats are a well-documented problem in Southern California and throughout the United States. Development could also fragment native plant populations, which may increase the likelihood of invasion by exotic plants due to the increased interface between natural habitats and developed areas. Bossard et al. (2000) list adverse effects of non-native species in natural open areas, including that exotic plants compete for light, water, and nutrients, and can create a thatch that blocks sunlight from reaching smaller native plants. Exotic plant species may alter habitats and displace native species over time, leading to extirpation of native plant species, unique vegetation communities, and subsequently suitable habitat for plant and special-status wildlife species. The introduction of non-native, invasive animal species could negatively affect native species that may be pollinators of or seed dispersal agents for plants within sensitive vegetation communities. Landscaping stock could bring in Argentine ants or other pests that could compete with native wildlife. However, landscaping is not proposed as part of the Boulder Brush Facilities.

Altering Natural Drainage. The Boulder Brush Facilities would result in permanent impacts to non-wetland waters. Hydrologic alterations include changes in flow rates and patterns in streams, which may affect adjacent and downstream vegetation communities. Water-quality impacts include erosion, increased turbidity, and excessive sedimentation. Direct impacts can also remove native vegetation and increase runoff from roads and other paved surfaces, resulting in increased erosion and transport of surface matter into vegetation communities. Altered erosion, increased surface flows, and underground seepage can allow for the establishment of non-native plants. Changed hydrologic conditions can also alter seed bank characteristics and modify habitat for ground-dwelling fauna that may disperse seed.

Increasing Noise and/or Nighttime Lighting. Noise would not affect vegetation communities. Some localized security-related lighting may be required during operation. Changes in natural light conditions can influence the photosynthetic rate and also strongly impacts the development of defense traits in plants (Yamawo and Hada 2010). Lighting would conform to County outdoor lighting requirements, and is not expected to affect adjacent vegetation communities.

Generation of Fugitive Dust. The effects of fugitive dust on sensitive vegetation communities would be the same as the temporary indirect impacts described above.

Habitat Fragmentation. Habitat fragmentation and isolation of plant populations may cause extinction of local populations as a result of two processes: reduction in total habitat area, which reduces effective population sizes; and insularization of local populations, which affects dispersal rates (Wilcove et al. 1986; Wilcox and Murphy 1985). Although these effects are more readily observable in wildlife, there are potential ecological effects, such as changes in pollinator populations, which can result in altered plant community composition and thus adversely affect sensitive vegetation communities. The Boulder Brush Facilities are not anticipated to result in habitat fragmentation for wildlife species that may utilize the Boulder Brush Corridor.

Chemical Pollutants. The effects of chemical pollutants on sensitive vegetation communities would be the same as the temporary indirect impacts described above. During operation and maintenance, herbicides may be used to prevent vegetation from reoccurring around structures. However, weed control treatments shall include all legally permitted chemical, manual, and mechanical methods applied with the authorization of the County agriculture commissioner. Additionally, the herbicides used during operation and maintenance activities would be contained within the Boulder Brush Facilities development footprint.

Alteration of the Natural Fire Regime. Shorter-than-natural fire return intervals can preclude recovery of the native vegetation between fires, weaken the ecological system, allow for invasion of exotic species, and in some cases, result in permanent transition of the vegetation to non-native communities, such as annual grassland and weedy communities (Keeley 1987; Malanson and O'Leary 1982; O'Leary et al. 1992). If the natural fire regime is suppressed, longer-than-natural fire return intervals can result in excessive buildup of fuel loads so that when fires do occur, they are catastrophic. Unnaturally long fire intervals can also result in senescence of plant communities, such as chaparral, that rely on shorter intervals for rejuvenation.

During operation, the high-voltage substation and switchyard would be unmanned. All monitoring and control functions would be performed remotely. Routine O&M would require a single pickup truck visiting the high-voltage substation and switchyard periodically for inspections, as well as maintenance/repair trucks visiting the substation several times a year for equipment maintenance. Maintenance activities would include equipment testing, equipment monitoring and repair, and emergency and routine procedures for service continuity. Regular inspection of fuel modification

zones around the perimeter of the high-voltage substation and switchyard would be conducted. One 30,000-gallon water tank is proposed for the substation. This fire prevention infrastructure would provide immediate resources for firefighting.

Campo Wind Facilities

Impact BI-S: Temporary Indirect Impacts to Sensitive Vegetation Communities

Potential temporary (construction-related) indirect impacts from grading and other construction activities to vegetation communities outside of the limits of grading related to the Campo Wind Facilities are similar to those described above for Boulder Brush Facilities and include potential impacts related to or resulting from increased human access, introduction of pests or exotic species, altering natural drainage, generation of fugitive dust, the introduction of chemical pollutants (including herbicides), and alteration of the natural fire regime. The following standard BMPs would be implemented to reduce impacts:

- Trash Abatement. Spoils, trash, or any construction-generated debris would be removed to an approved off-site disposal facility. A trash abatement program would be established. Trash and food items would be contained in closed containers and removed daily to reduce the attraction of opportunistic predators such as common ravens, and feral cats and dogs that may prey on sensitive species.
- Wildfire Prevention. Wildfires would be prevented by exercising care when driving and by not parking vehicles where catalytic converters could ignite dry vegetation. All construction vehicles would carry water and shovels or fire extinguishers in the field, or high fire risk installations (e.g., electric lines) may need to be delayed. The use of shields, protective mats, or other fire-prevention equipment would be used during grinding and welding to prevent or minimize the potential for fire.
- Erosion, Runoff, and Sedimentation Prevention. All construction activities would cease during heavy rains (i.e., rainfall over 0.2 inches) to prevent unnecessary erosion, runoff, and sedimentation and would not resume until conditions are suitable for the movement of equipment and materials.
- Toxic Substances. Vehicles would carry a Hazardous Material Spill Kit for use in the event of a spill. All personnel working on site would be trained in using these kits. Spill containment materials must be on site or readily available for any equipment maintenance or refueling.
- Pets and Firearms. Workers would be prohibited from bringing domestic pets and firearms to the site.
- Speed Limit. Vehicle speeds on site would be restricted to 15 miles per hour (24 kilometers per hour) during all phases of the project. Speed limit signs would be posted throughout the site to remind personnel of travel speed restrictions.

- Work Hours. Construction should occur during the daytime only, and no construction should take place at night unless otherwise approved by the Tribe.[6] "Nighttime" is defined as between 7:00 p.m. and 7:00 a.m.
- Lighting. Construction activities should not include nighttime lighting. Temporary security lighting around staging areas may be required for safety during construction activities up until 7:00 p.m.

Nonetheless, potential temporary indirect impacts on the Campo Corridor would be **potentially significant** (**Impact BI-S**).

Impact BI-T: Permanent Indirect Impacts to Sensitive Vegetation Communities

Permanent (operation-related) indirect impacts could result from the proximity of the Campo Wind Facilities to sensitive vegetation communities after construction, including impacts related to operation and maintenance. Operation and maintenance activities would occur within the Campo Corridor. Potential permanent indirect impacts that could affect sensitive vegetation communities include increased human access, introduction of pests or exotic species, altering natural drainage, and alteration of the natural fire regime. The standard BMPs identified above would also be implemented during operations, as applicable, which would minimize some of these potential impacts. Nonetheless, these potential indirect impacts would be **potentially significant** (**Impact BI-T**).

Guideline E (Wetland Buffers)

Project

The Boulder Brush Corridor is subject to the County's RPO. The County's RPO is not applicable to the Campo Corridor. Construction of the Boulder Brush Facilities would result in **potentially significant impacts** to RPO wetlands and wetland buffers (**Impact BI-22**).

Boulder Brush Facilities

Impact BI-22: Permanent Direct Impacts to RPO Wetland and Wetland Buffer

There are RPO wetlands within Tule Creek in three areas within the Boulder Brush Corridor. An existing disturbed area that bisects the RPO wetlands and wetland buffer associated with Tule Creek would be improved for use as an unpaved road, and widened to 25 feet in order to accommodate construction equipment, resulting in permanent impacts to 0.09 acres of RPO wetland/wetland buffer (Figure 2.3-3j).

[6] No construction activities will occur at night; however, due to Caltrans restriction on oversize loads during peak traffic hours, some equipment deliveries may occur after hours.

Additional improvements are needed along Ribbonwood Road which would permanently impact 0.31 acres of RPO wetland/wetland buffer (Figure 2.3-3l). There are also temporary impacts associated with each of these road improvements, totaling 0.90 acres of RPO wetland/wetland buffer.

In addition, during construction of the Off-Reservation gen-tie line, a 12-foot wide temporary construction access which crosses Tule Creek (Figure 2.3-3f) would be required to connect the overhead electrical lines between poles. This construction access would be used only temporarily during construction, would not require any grading, and would not be used for permanent access. No gravel or pavement would be placed within the creek. Following construction, disturbance along this 12-foot wide temporary construction access that crosses Tule Creek would be restored to pre-Project conditions. This temporary construction access results in approximately 0.27 acres of temporary impacts to RPO wetland/wetland buffer (Figure 2.3-3f).

In total, there are temporary impacts to 0.49 acres of RPO wetland and 0.68 acres of RPO wetland buffer, for a total of 1.17 acres of temporary impacts. There are permanent impacts to 0.17 acres of RPO wetland and 0.23 acres of RPO wetland buffer, for a total of 0.40 acres of impacts to RPO wetland/wetland buffer.

Section 86.604 of the RPO provides the following list of permitted uses within wetlands and wetland buffers [original numbering retained] (County of San Diego 2012):

> (5) Crossings of wetlands for roads, driveways or trails/pathways dedicated and improved to the limitations and standards under the County Trails Program, that are necessary to access adjacent lands, when all of the following conditions are met:
>
> (aa) There is no feasible alternative that avoids the wetland;
>
> (bb) The crossings are limited to the minimum number feasible;
>
> (cc) The crossings are located and designed in such a way as to cause the least impact to environmental resources, minimize impacts to sensitive species and prevent barriers to wildlife movement (e.g., crossing widths shall be the minimum feasible and wetlands shall be bridged where feasible);
>
> (dd) The least-damaging construction methods are utilized (e.g., staging areas shall be located outside of sensitive areas, work shall not be performed during the sensitive avian breeding season, noise attenuation measures shall be included and hours of operation shall be limited so as to comply with all applicable ordinances and to avoid impacts to sensitive resources);
>
> (ee) The applicant shall prepare an analysis of whether the crossing could feasibly serve adjoining properties and thereby result in minimizing the number of additional crossings required by adjacent development; and

(ff) There must be no net loss of wetlands and any impacts to wetlands shall be mitigated at a minimum ratio of 3:1 (this shall include a minimum 1:1 creation component, while restoration/enhancement of existing wetlands may be used to make up the remaining requirements for a total 3:1 ratio).

Construction of the Boulder Brush Facilities would involve use of an existing disturbed area to cross over the middle segment of Tule Creek (Figure 2.3-3j). This is the only existing disturbed access to the western portion of the Boulder Brush Corridor. This existing crossing would need to be improved to accommodate the necessary construction equipment (i.e., widening to 25 feet) and installation of a larger culvert to maintain flows beneath the roadway. In addition, improvements to Ribbonwood Road would require minimal impacts to the RPO wetlands buffer along the southern portion of Tule Creek (Figure 2.3-3l). In addition, during construction of the Off-Reservation gen-tie line, a 12-foot-wide temporary construction access which crosses Tule Creek (Figure 2.3-3f) would be required to connect the overhead electrical lines between poles. This construction access would be used only temporarily during construction, would not require any grading, and would not be used for permanent access. No gravel or pavement would be placed within the creek. Following construction, disturbance along this 12-foot wide temporary construction access that crosses Tule Creek would be restored to pre-Project conditions. However, for habitat mitigation purposes, these impacts are considered permanent. The Boulder Brush Facilities would result in **potentially significant impacts** to RPO wetland buffers (**Impact BI-22**).

Campo Wind Facilities

Impact BI-U: Permanent Direct Impacts to RPO Wetland and Wetland Buffer within the Campo Corridor

The Campo Corridor is not subject to the County RPO. It is not known whether there are biological resources subject to that County's RPO within the Campo Corridor. Therefore, no mitigation measures are proposed. Impacts to such resources, if they exist, are considered to be **significant and unavoidable** (**Impact BI-U**).

2.3.3.4 Jurisdictional Wetlands and Waterways

Guidelines for the Determination of Significance

For the purpose of this EIR, the County's Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources (County of San Diego 2010a) and County of San Diego Report Format and Content Requirements: Biological Resources (County of San Diego 2010b) were used to evaluate the direct, indirect, and cumulative impact analysis.

A significant impact would result if:

> The project would 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.

Analysis

Project

As described in Section 2.3.3.3, Riparian Habitat or Sensitive Natural Community, under "Analysis," the Project would have temporary and permanent direct impacts to jurisdictional aquatic resources, including wetlands, as defined by Section 404 of the Clean Water Act related to the construction of facilities on the Boulder Brush Corridor (**Impact BI-15** through **Impact BI-19**) and Campo Corridor (**Impact BI-O** through **Impact BI-R**).

Boulder Brush Facilities

As described in Section 2.3.3.3, Riparian Habitat or Sensitive Natural Community, under "Analysis," the Boulder Brush Facilities would have temporary and permanent direct impacts to jurisdictional aquatic resources, including wetlands, as defined by Section 404 of the Clean Water Act related to the construction of Boulder Brush Facilities (**Impact BI-15** through **Impact BI-19**). Refer to Table 2.3-6 for a summary of impacts to jurisdictional wetlands and waters.

Campo Wind Facilities

As described in Section 2.3.3.3, Riparian Habitat or Sensitive Natural Community, under "Analysis," the Campo Wind Facilities would have temporary and permanent direct impacts to jurisdictional aquatic resources, including wetlands, as defined by Section 404 of the Clean Water Act (**Impact BI-O** through **Impact BI-R**). For additional information, refer to Table 2.3-6, as well as referring to the EIS for information about the federal waters impacts resulting from the Campo Wind Facilities.

2.3.3.5 Wildlife Movement and Nursery Sites

Guidelines for the Determination of Significance

For the purpose of this EIR, the County's Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources (County of San Diego 2010a) and County of San Diego Report Format and Content Requirements: Biological Resources (County of San Diego 2010b) were used to evaluate the direct, indirect, and cumulative impact analysis. Each

general subject area is broken into more specific County guidelines, and lettered accordingly, to provide additional clarity on this complex resource topic.

A significant impact would result if:

The project would interfere substantially with the movement of a 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.

A. The project would impede wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.

B. The project would substantially interfere with connectivity between blocks of habitat, or would potentially block or substantially interfere with a local or regional wildlife corridor or linkage. For example, if the project proposes roads that cross corridors, fencing that channels wildlife to underpasses located away from interchanges shall be required to provide connectivity. Wildlife underpasses shall have dimensions (length, width, height) suitable for passage by the affected species based on a site-specific analysis of wildlife movement. Another example is increased traffic on an existing road that would result in significant road-kill or interference with an existing wildlife corridor/linkage.

C. The project would create artificial wildlife corridors that do not follow natural movement patterns; for example, constraining a corridor for mule deer or mountain lion to an area that is not well-vegetated or that runs along the face of a steep slope instead of through the valley or along the ridgeline.

D. The project would increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels likely to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.

E. The project does not maintain an adequate width for an existing wildlife corridor or linkage and/or would further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover, placement of incompatible uses adjacent to it, and placement of barriers in the movement path. The adequacy of the width shall be based on the biological information for the target species, the quality of the habitat within and adjacent to the corridor, topography, and adjacent land uses. Where there is limited topographic relief, the corridor should be well-vegetated and adequately buffered from adjacent development. Corridors for bobcats, deer, and other large animals should reach rim-to-rim along drainages.

F. The project does not maintain adequate visual continuity (i.e., long lines of site) within wildlife corridors or linkage. For example, development (such as homes or structures) sited along the rim of a corridor could present a visual barrier to wildlife movement.

For stepping-stone/archipelago corridors, a project does not maintain visual continuity between habitat patches.

Analysis

Guideline A (Wildlife Access to Foraging and Breeding Habitat)

Project

The Project Site is located within primarily undeveloped land with a variety of woodland, scrub, and grasslands that provide suitable foraging and breeding habitat. Potential temporary direct impacts to foraging and breeding habitat within the Core Wildlife Area due to the construction would be **potentially significant** (**Impact BI-23**).

Boulder Brush Facilities

Impact BI-23: Temporary Direct Impacts to Wildlife Access to Foraging and Breeding Habitat

The Boulder Brush Facilities are proposed within primarily undeveloped land with a variety of woodland, scrub, and grasslands that provide suitable foraging and breeding habitat. Temporary direct impacts to potential foraging and breeding habitat for species that use the Boulder Brush Corridor would primarily result from construction activities. Clearing, trampling, or grading of foraging and breeding habitat outside of the Boulder Brush Corridor could occur to the County Core Wildlife area, if proper measures are not implemented. Potential temporary direct impacts to foraging and breeding habitat within the Core Wildlife Area due to the construction of the Boulder Brush Facilities would be **potentially significant** (**Impact BI-23**).

Permanent Direct Impacts

Implementation of the proposed Boulder Brush Facilities is not expected to result in permanent direct impacts to habitat connectivity and wildlife corridors. Refer to Section 2.3.3.2, Guideline G, for analysis of the Core Wildlife Area permanent direct impacts. Installation of the Boulder Brush Facilities would result in **less-than-significant impacts**.

Campo Wind Facilities

Impact BI-V: Temporary Direct Impacts to Wildlife Access to Foraging and Breeding Habitat

There are no temporary direct impacts to a Core Wildlife Area associated with the Campo Wind Facilities, because the area is not within a County-defined Core Wildlife Area and such designations

are not applicable to land within the Reservation Boundary. Construction-related impacts to vegetation communities, such as clearing, trampling, or grading of vegetation outside designated construction zones, could occur in the absence of avoidance and mitigation measures, and thus could impede access to important resources. Potential temporary direct impacts to foraging and breeding habitat on site would be **potentially significant**, absent mitigation (**Impact BI-V**).

Permanent Direct Impacts

Implementation of the proposed Campo Wind Facilities is not expected to result in permanent direct impacts to habitat connectivity and wildlife corridors. Refer to Section 2.3.3.2, Guideline G, for analysis of the Core Wildlife Area permanent direct impacts. Installation of the Campo Wind Facilities would result in **less-than-significant impacts**.

Guideline B (Connectivity between Blocks of Habitat, and Local and Regional Wildlife Corridors or Linkages)

Project

Development of the Project is not anticipated to hinder wildlife movement through the surrounding landscapes because the Project components would not provide a contiguous barrier to wildlife movement. The Project would have **less-than-significant** direct impacts on connectivity between blocks of habitat.

Boulder Brush Facilities

Although construction of the Boulder Brush Facilities would impact areas where wildlife may generally move through, it is not anticipated to hinder wildlife movement through the surrounding undeveloped landscapes because the gen-tie line support poles would be widely spaced and linear components would not be fenced. Therefore, installation of the gen-tie line support poles, and other associated features is not anticipated to constrain any wildlife movement corridor within the region. Potential collision or electrocution impacts are described in Section 2.3.3.2 (**Impact BI-7**). The Boulder Brush Facilities would have **less-than-significant** direct impacts on connectivity between blocks of habitat and local and regional wildlife corridors or linkages.

Campo Wind Facilities

The Campo Wind Facilities are not expected to result in permanent direct impacts to habitat connectivity and wildlife corridors, as they would not hinder wildlife movement through the surrounding landscapes. It is also noted there are already existing roads and structures in the Campo Corridor, including the I-8 freeway. Additional human activity from O&M activities is not expected to significantly impact wildlife movement throughout the Campo Corridor. Therefore, installation

of the turbines, met towers, gen-tie line support poles, and other associated features is not anticipated to constrain any wildlife movement corridor within the region. Potential collision impacts are described in Section 2.3.3.2 (**Impact BI-E** and **Impact BI-D**). The Campo Wind Facilities would have **less-than-significant** direct impacts on connectivity between blocks of habitat, and local and regional wildlife corridors and linkages.

Guideline C (Creation of Unnatural Movement Corridors)

Project

The gen-tie line, switchyard, high-voltage substation, O&M facility, turbines, met towers, and access roads would not create a barrier to wildlife movement, nor would they constrain a corridor such that natural wildlife movement would be interrupted because turbines and gen-tie line support poles would be widely spaced and linear components would not be fenced. Therefore, impacts to wildlife movement from the Project would be **less than significant**.

Boulder Brush Facilities

The presence of steel support poles for the gen-tie line would not create a barrier to ground-based wildlife movement, nor would they constrain a corridor such that natural wildlife movement would be interrupted because gen-tie line support poles would be widely spaced and linear components would not be fenced. Likewise, the 3.5 mile long gen-tie line within the Boulder Brush Corridor would not preclude the use of the Pacific Flyway for avian species, nor would it artificially constrain avian species to a modified or "un-natural" movement corridor. Permanent fencing is limited to the high-voltage substation and switchyard. Although the Boulder Brush Facilities would involve placement of structures and gen-tie line support poles within the landscape, these features would not be considered barriers that would interfere with the movement of wildlife species within and throughout the Boulder Brush Corridor. Therefore, impacts to wildlife movement from the Boulder Brush Facilities would be **less than significant**.

Impact BI-24 Impacts to Wildlife Species Movement from Collision and Electrocution

Migrating birds species would be at risk for electrocution or collision from the overhead gen-tie line within the Boulder Brush Corridor, which would be a **potentially significant impact** (**Impact BI-24**).

Electrocution by contact with power lines has the potential to cause eagle injury or mortality of individuals; however, the USGS biotelemetry data suggests that the Boulder Brush Corridor and surrounding area receives little use by eagles and is not the core territory of any eagles. Additionally, there were low occurrences of bats during surveys within the Boulder Brush Corridor, particularly when compared to other areas with higher-quality habitat types in the region. Therefore, the chance for collisions/electrocution for bats and eagles is very low and potential impacts would be **less than significant**.

Campo Wind Facilities

Development of the Campo Wind Facilities within the Campo Corridor would not result in the creation of unnatural movement corridors. Wildlife can freely move through the Campo Corridor and would continue to move freely through the Reservation Boundary following construction. The turbines, met towers, gen-tie line, collector substation, O&M facility and access roads would not create a barrier to wildlife movement, nor would they constrain a corridor such that natural wildlife movement would be interrupted. Therefore, impacts to wildlife movement from the Campo Wind Facilities would be **less than significant**.

Impact BI-W Impacts to Wildlife Species Movement from Electrocution

Migrating birds and bat species would be at risk for electrocution from the overhead power lines within the Campo Corridor, which would be a **potentially significant impact** (**Impact BI-W**).

Electrocution by contact with power lines, has the potential to cause eagle injury or mortality of individuals; however, the USGS biotelemetry data suggests that the Campo Corridor and surrounding area receives little use by eagles and is not the core territory of any eagles. Therefore, the chance for collisions/electrocution is very low and potential impacts would be **less than significant**.

Impact BI-X Impacts to Wildlife Species Movement from Collisions

Migratory birds would be at risk for collisions risk for electrocution or collision and these impacts would be **significant** (**Impact BI-X**).

Guideline D (Noise and Lighting Impacts to Wildlife Corridors)

Project

Lighting on Project turbines would be implemented in accordance with current FAA standards. Lighting on components other than turbines within the Campo Corridor (e.g., O&M building, collector substation) would be motion sensitive rather than steady burning; lights would be installed in a "high-mounted light" manner and directed downward to minimize spill light. Lighting would be kept to the minimum required to ensure adequate lighting for O&M staff to perform as-needed and/or emergency maintenance. Outdoor nighttime lighting at the high-voltage substation and switchyard would be kept to the minimum required for security and safety, and all lighting would be hooded, directed downward, and turned off when not required. Some of the perimeter lighting would remain on all night for safety purposes, though shielded and directed towards accesses or signs. Lighting within the Boulder Brush Corridor would conform to County outdoor lighting requirements. As such, operations lighting is not expected to affect wildlife corridors. Operational noise would be generated by the turbines, collector substation, high-voltage substation, and O&M activities. Based on the distributed development of the Project, i.e., wide

spacing between components that generate noise Project noise would not be expected to impact wildlife corridors. Project construction would result in noise and ground vibrations through the use of mechanized equipment and increased traffic. Lighting associated with possible nighttime work would be limited to vehicle deliveries and not expected to affect adjacent wildlife habitat. Construction noise would result from construction workers and construction machinery throughout construction activities would be short term temporary activities. Therefore, the potential noise and lighting impacts to wildlife corridors as a result of the Project would be **less than significant**.

Boulder Brush Facilities

Security lighting is proposed at the high-voltage substation and switchyard. Lighting would be designed to minimize light pollution and preserve dark skies, while enhancing safety, security, and functionality. Some localized security-related lighting may be required during construction and/or operation. Lighting on the Boulder Brush Facilities would conform to County outdoor lighting requirements. Overall, lighting associated with the Boulder Brush Facilities is not expected to result in significant impacts to wildlife corridors.

Construction of the Boulder Brush Facilities would result in noise and ground vibrations through the use of mechanized equipment and increased traffic. Most wildlife species, such as cougars and bobcats, that would use the area as a habitat corridor or live-in habitat are nocturnal, and, therefore, would not be impacted by construction while foraging and moving at night. Noise associated with the Boulder Brush Facilities is not expected to result in significant impacts to wildlife corridors because construction noise would be temporary and operational noise would be minimal and limited to the high-voltage substation and switchyard.

Therefore, the potential noise and lighting impacts to Wildlife Corridors as a result of the Boulder Brush Facilities would be **less than significant**.

Campo Wind Facilities

Permanent lighting associated with the Campo Wind Facilities would consist of the O&M facility, FAA lighting on Project turbines, and at the collector substation. The O&M facility and collector substation would include security lighting designed to minimize light pollution and preserve dark skies, while enhancing safety, security, and functionality. Some localized security-related lighting may be required during construction and/or operation. Turbine lighting would comply with FAA regulations. Overall, lighting associated with the Campo Wind Facilities is not expected to result in significant impacts to wildlife corridors.

Project construction would result in noise and ground vibrations through the use of mechanized equipment and increased traffic. Most wildlife species, such as cougars and bobcats, that would use the area as a habitat corridor or live-in habitat are nocturnal, and therefore, would not be

impacted by Project construction while foraging and moving at night. Construction noise would be temporary and operational noise sources would be widely spaced.

Therefore, the potential noise and lighting impacts as a result of the Campo Wind Facilities would be **less than significant**.

Guideline E (Width of Wildlife Corridors)

Project

Wildlife can move throughout the Project Site, which does not contain defined narrow wildlife corridors; therefore, the Project development footprint would not further constrain an already narrow corridor. Although the Project would involve placement of structures and gen-tie line support poles within the landscape, these features would not be considered barriers that would interfere with the movement of wildlife through the area.

Boulder Brush Facilities

The Boulder Brush Facilities would not further constrain an already narrow corridor. Although the Boulder Brush Facilities would involve placement of gen-tie line support poles, switchyard, high-voltage substation, and access roads within the landscape, there would be a **less-than-significant impact** related to maintaining an adequate width for an existing wildlife corridor because the Boulder Brush Corridor does not contain any defined narrow wildlife corridors.

Campo Wind Facilities

The Campo Wind Facilities would not further constrain an already narrow corridor. Although the Project would involve placement of turbines, gen-tie line support poles, access roads, an O&M facility and a collector substation within the landscape, these features would not be considered barriers that would interfere with the movement of wildlife through the area, there is no impact related to maintaining an adequate width for an existing wildlife corridor because the Campo Corridor does not contain any defined wildlife corridors.

Guideline F (Visual Continuity within Wildlife Corridors)

Project

The Project would not create a barrier to visual continuity within a wildlife corridor or linkage because components would be widely spaced and linear components would not be fenced. Impacts related to the visual continuity within wildlife corridors would be less than significant.

Boulder Brush Facilities

The Boulder Brush Facilities would not create a barrier to visual continuity within a wildlife corridor or linkage. No structures would be placed along the rim of a corridor which would present a visual barrier to wildlife movement. Further, the Off-Reservation gen-tie line support poles would be widely spaced and do not present a visual or physical barrier, and would not prohibit wildlife from moving around them. Impacts related to the visual continuity within wildlife corridors are **less than significant**.

Campo Wind Facilities

The Campo Wind Facilities would not create a barrier to visual continuity within a wildlife corridor or linkage. No structures (turbines, gen-tie line support poles, access roads, and an O&M facility) would be placed along the rim of a corridor which would present a visual barrier to wildlife movement. Further, the turbines are widely spaced apart, would not present a visual or physical barrier, and would not prohibit wildlife from moving around them. Impacts related to the visual continuity within wildlife corridors are **less than significant**.

2.3.3.6 Local Policies, Ordinances, and Adopted Plans

Guidelines for the Determination of Significance

For the purpose of this EIR, the County's Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources (County of San Diego 2010a) and County of San Diego Report Format and Content Requirements: Biological Resources (County of San Diego 2010b) were used to evaluate the direct, indirect, and cumulative impact analysis. Each general subject area is broken into more specific County guidelines, and lettered accordingly, to provide additional clarity on this complex resource topic.

A significant impact would result if:

> The project would conflict with one or more local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and/or would conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Communities Conservation Plan (NCCP), or other approved local, regional, or state HCP.
>
> A. For lands outside of the Multiple Species Conservation Plan (MSCP), the project would impact coastal sage scrub (CSS) vegetation in excess of the County's 5% habitat loss threshold as defined by the Southern California Coastal Sage Scrub NCCP Process Guidelines.

B. The project would preclude or prevent the preparation of the subregional NCCP. For example, the project proposes development within areas that have been identified by the County or Resource Agencies as critical to future habitat Preserves.

C. The project would impact any amount of wetlands or sensitive habitat lands as outlined in the Resource Protection Ordinance (RPO).

D. The project would not minimize and/or mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the NCCP Process Guidelines.

E. The project does not conform to the goals and requirements as outlined in any applicable HCP, Habitat Management Plan (HMP), Special Area Management Plan (SAMP), Watershed Plan, or similar regional planning effort.

F. For lands within the MSCP, the project would not minimize impacts to Biological Resource Core Areas (BRCAs), as defined in the Biological Mitigation Ordinance (BMO).

G. The project would preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub NCCP Process Guidelines.

H. The project does not maintain existing movement corridors and/or habitat linkages as defined by the BMO.

I. The project does not avoid impacts to MSCP narrow endemic species and would impact core populations of narrow endemics.

J. The project would reduce the likelihood of survival and recovery of listed species in the wild.

K. The project would result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (Migratory Bird Treaty Act).

L. The project would result in the take of eagles, eagle eggs, or any part of an eagle (Bald and Golden Eagle Protection Act).

Analysis

Guideline A (Coastal Sage Scrub Habitat Loss)

Project

The Project Site does not support Coastal Sage Scrub habitat, and therefore would have no impact on coastal scrub vegetation.

Boulder Brush Facilities

The Boulder Brush Corridor does not support Coastal Sage Scrub habitat, and therefore would have **no impact** to coastal sage scrub vegetation.

Campo Wind Facilities

The Campo Corridor does not support Coastal Sage Scrub habitat, and therefore would have **no impact** to coastal sage scrub vegetation.

Guideline B (NCCP Planning)

Project

Although a preliminary draft planning map of the focused conservation areas has been prepared, the future MSCP East County Plan currently has no schedule for completion. Development of the Boulder Brush Facilities within the Boulder Brush Corridor would not preclude or prevent the preparation of the subregional NCCP because the Boulder Brush Facilities have been planned in accordance with the general planning principles of the MSCP and in consideration of preparation of the future MSCP East County Plan. Therefore, the potential impacts to NCCP Planning a result of the Boulder Brush Facilities would be **less than significant**. The Campo Corridor is not subject to NCCP planning; therefore, **no impact** would occur.

Boulder Brush Facilities

A portion of the Boulder Brush Boundary is located within a Focused Conservation Area (FCA) identified in the draft MSCP East County Plan map (Figure 2-2 of Appendix D). It is described as an "Agriculture or Natural Upland within FCA."

The Boulder Brush Facilities would not preclude or prevent the preparation of the subregional NCCP because the Boulder Brush Facilities have been planned in accordance with the general planning principles of the MSCP and in consideration of preparation of the future MSCP East County Plan. The Project design has been evaluated according to the Preliminary Conservation Objectives outlined in the Planning Agreement for East County MSCP (County of San Diego 2014), which is in effect until January 2020. For example, numerous surveys conducted over the years have identified biologically sensitive areas and plant and wildlife species on site. The mitigation required for the Project (described in Section 2.3.6, below) ensures that habitat is protected throughout the Planning Area, special-status plant and wildlife species are protected, reduce the need to list additional species because the Boulder Brush Corridor does not support candidate or species in peril, and the Boulder Brush Facilities analysis and mitigation is consistent with the County's guidelines. These objectives, and Boulder Brush Facilities

applicability/compliance, are listed in Table 2.3-5. Therefore, the potential impacts to NCCP Planning as a result of the Boulder Brush Facilities would be **less than significant**.

Campo Wind Facilities

The Campo Corridor is not subject to NCCP planning; **no impact** would occur.

Guideline C (RPO Wetlands)

Project

There are RPO wetlands along Tule Creek and Ribbonwood Road within the Boulder Brush Corridor. Impacts to RPO wetlands (**Impact BI-15** through **Impact BI-19** and **Impact BI-22**) would be **potentially significant**. The Campo Corridor is not subject to the County RPO and therefore no RPO wetlands are located within the Campo Corridor. **No impact** to RPO wetlands would occur within the Campo Corridor.

Boulder Brush Facilities

There are RPO wetlands within Tule Creek in three areas within the Boulder Brush Corridor. An existing disturbed area that bisects the RPO wetlands and wetland buffer associated with Tule Creek would be improved for use as an unpaved road, and widened to 25 feet in order to accommodate construction equipment, resulting in permanent impacts to 0.09 acres of RPO wetland/wetland buffer (Figure 2.3-3j).

Additional improvements are needed along Ribbonwood Road which would permanently impact 0.31 acres of RPO wetland/wetland buffer (Figure 2.3-3l). There are also temporary impacts associated with each of these road improvements, totaling 0.90 acres of RPO wetland/wetland buffer.

In addition, during construction of the Off-Reservation gen-tie line, a 12-foot-wide temporary construction access which crosses Tule Creek (Figure 2.3-3f) would be required to connect the overhead electrical lines between poles. This construction access would be used only temporarily during construction, would not require any grading, and would not be used for permanent access. No gravel or pavement would be placed within the creek. Following construction, disturbance along this 12-foot-wide temporary construction access that crosses Tule Creek would be restored to pre-Project conditions. This temporary construction access results in approximately 0.27 acres of temporary impacts to RPO wetland/wetland buffer (Figure 2.3-3f).The Boulder Brush Facilities doesn't include the restoration of the temporary impacted areas via a restoration plan with enforceable success criteria, as temporary impacts are considered permanent under County policy. However, the RPO wetlands/wetland buffers are temporarily impacted as part of a construction access across Tule Creek that will be utilized only during construction and will not be permanent.

In total, there are temporary impacts to 0.49 acres of RPO wetland and 0.68 acres of RPO wetland buffer, for a total of 1.17 acres of temporary impacts. There are permanent impacts to 0.17 acres of RPO wetland and 0.23 acres of RPO wetland buffer, for a total of 0.40 acres of impacts to RPO wetland/wetland buffer.

The Boulder Brush Facilities also has potential to result in indirect construction and operational impacts to RPO wetlands. These indirect impacts include potential impacts related to hydrology, fugitive dust, chemical pollutants, non-native invasive species, and alteration of the natural fire regime. Refer to Section 2.3.3.3, Guideline E (Resource Protection Ordinance Buffers) for additional details. Impacts to RPO wetlands (**Impacts BI-15** through **Impact BI-19** and **Impact BI-22**) would be **potentially significant**.

Campo Wind Facilities

The Reservation is not subject to the County's RPO. It is not known whether there are RPO resources within the Campo Corridor. These impacts are discussed in Section 2.3.3.3, Project Effects Relevant to Guideline 4.2.E (Wetland Buffers) (**Impact BI-U**). Therefore mitigation is not proposed. This impact would remain **significant and unavoidable**.

Guideline D (Coastal Sage Scrub)

Project

The Boulder Brush Corridor and Campo Corridor do not support Coastal Sage Scrub habitat, and therefore would have **no impact** on coastal sage scrub vegetation.

Boulder Brush Facilities

The Boulder Brush Corridor does not support Coastal Sage Scrub habitat, and therefore would have **no impact** to coastal sage scrub vegetation.

Campo Wind Facilities

The Campo Corridor does not support Coastal Sage Scrub habitat, and therefore would have **no impact** to coastal sage scrub vegetation.

Guideline E (Regional Planning Efforts)

Project

The Boulder Brush Boundary is located within the boundaries of the draft MSCP East County Plan area. The Boulder Brush Facilities conform to the goals and requirements as outlined in the East County MSCP Planning Agreement Conservation Objectives. The Campo Wind Facilities are not

subject to the MSCP. The Campo Wind Facilities are subject to the land use and permitting jurisdiction of the Tribal government and BIA. However, under the Campo Lease, Tribal regulations and plans such as the Campo Land Use Code and Campo Land Use Plan are not applicable to the Campo Wind Facilities. Therefore, the Project conforms to the goals and requirements as outlined in the regional planning effort.

Boulder Brush Facilities

The Boulder Brush Facilities conform to the goals and requirements as outlined in the East County MSCP Planning Agreement Conservation Objectives; therefore, the Boulder Brush Facilities conform to the goals and requirements as outlined in the regional planning effort.

Campo Wind Facilities

The Campo Band of Mission Indians Land Use Plan (Campo Band of Mission Indians 2010) indicates oak woodlands, riparian habitats, and listed species are to be preserved and protected to the maximum extent feasible. The plan also designates wilderness protection areas along the western side and northern area of the Reservation. As discussed in Sections 2.3.3.2 to 2.3.3.4, the Campo Wind Facilities would impact oak woodlands, riparian habitats and federally protected species. The Campo Wind Facilities avoid most of the designated wilderness area. While the Campo Wind Facilities would result in impacts within the designated wilderness area, the disturbance area would be approximately 800 acres, less than half the possible lease lands area. The disturbance area is minimized to the extent feasible avoiding both resources and unnecessary expenditure. Under the Campo Lease, Tribal regulations and plans such as the Campo Land Use Code and Campo Land Use Plan are not applicable to the Campo Wind Facilities. Thus, the Campo Wind Facilities would not result in a conflict with the Campo Band of Mission Indians Land Use Plan and **no impact** would occur.

Guideline F (Biological Mitigation Ordinance)

Project

There is no approved MSCP East County Plan or associated BMO. This guideline does not apply to the Boulder Brush Corridor and the Campo Corridor is not subject to the County's MSCP. Therefore, **no impacts** would occur.

Boulder Brush Facilities

Since there is no approved East County MSCP and no associated BMO, this guideline does not apply to the Boulder Brush Corridor, and therefore, **no impacts** would occur.

Campo Wind Facilities

The Campo Corridor is not subject to the County's MSCP. Therefore, **no impacts** would occur.

Guideline G (Connectivity between Areas of High Habitat Value)

Project

Development of the Project is not anticipated to hinder wildlife connectivity because the Project components would not provide a contiguous barrier to wildlife movement between areas of high habitat values as defined in the NCCP Guidelines. The Project would have **less-than-significant** direct impacts on connectivity between blocks of habitat.

Boulder Brush Facilities

Although construction of the Boulder Brush Facilities would impact areas where wildlife may generally move through, it is not anticipated to hinder wildlife movement through the surrounding undeveloped landscapes because the gen-tie line support poles would be widely spaced and linear components would not be fenced. Therefore, installation of the gen-tie line support poles, and other associated features is not anticipated to constrain any wildlife movement corridor or movement between high habitat values as defined in the NCCP Guidelines within the region. The Boulder Brush Facilities would have **less-than-significant** direct impacts on connectivity between habitats.

Campo Wind Facilities

The Campo Wind Facilities are not expected to result in permanent direct impacts to habitat connectivity and wildlife corridors, as they would not hinder wildlife movement through the surrounding landscapes. It is also noted there are already existing roads and structures in the Campo Corridor, including the I-8 freeway. Additional human activity from O&M activities is not expected to significantly impact wildlife movement throughout the Campo Corridor. Therefore, installation of the turbines, met towers, gen-tie line support poles, and other associated features is not anticipated to constrain any wildlife movement corridor within the region. The Campo Wind Facilities would have **less-than-significant** direct impacts on connectivity between blocks of habitat.

Guideline H (Movement Corridors Defined in the BMO)

Project

Since there is no approved East County MSCP Plan and therefore no associated BMO, this guideline does not apply to the Boulder Brush Corridor. The MSCP is not applicable to the Campo Corridor. Therefore, no impacts would occur.

Boulder Brush Facilities

Since there is no approved East County MSCP and no associated BMO, this guideline does not apply to the Boulder Brush Corridor. Therefore **no impact** would occur.

Campo Wind Facilities

The Campo Corridor is not subject to the County's MSCP; therefore, **no impact** would occur.

Guideline I (Narrow Endemics)

Project

Narrow endemic species are evaluated under the County Guidelines for Determining Significance for Biological Resources. Narrow endemic species are defined in the adopted MSCP Plan. The Project Site is located outside of the adopted MSCP Plan boundaries. Therefore, **no impact** would occur.

Boulder Brush Facilities

The Boulder Brush Corridor is located outside of the adopted MSCP Plan boundaries; therefore, **no impact** would occur.

Campo Wind Facilities

The Campo Corridor is not subject to the adopted MSCP Plan and is outside of the MSCP boundaries; therefore, **no impact** would occur.

Guideline J (Listed Species)

Project

Quino checkerspot butterfly is known to occur in the Project Site and the Project would result in impacts within potentially occupied habitat (**Impact BI-A**). There are no other federally or state-listed plant species observed within the Project Site.

Boulder Brush Facilities

Quino checkerspot butterfly is known to occur in the Boulder Brush Corridor and impacts would occur to potentially occupied habitat (**Impact BI-1**). No other federally or state-listed plant or wildlife species have been observed within the Boulder Brush Corridor.

Campo Wind Facilities

Quino checkerspot butterfly is known to occur in the Campo Corridor and there are impacts to potentially occupied habitat (**Impact BI-A**). The analysis and conclusions contained in the EIS regarding the Quino checkerspot butterfly are hereby incorporated by reference.

Guideline K (Migratory Birds)

Project

Temporary impacts to migratory birds and active migratory bird nests and/or eggs during initial construction and ongoing maintenance of the Boulder Brush Facilities would be **potentially significant** (**Impact BI-25**). If any active nests or the young of nesting special-status bird species protected under the MBTA are impacted due to construction and ongoing maintenance of the Campo Wind Facilities, these impacts would be **potentially significant** (**Impact BI-Y)**.

Boulder Brush Facilities

Impact BI-25: Direct and Indirect Impacts to Active Migratory Bird Nesting

Temporary impacts to migratory birds and active migratory bird nests and/or eggs during initial construction, and ongoing maintenance would be **potentially significant** (**Impact BI-25**).

Campo Wind Facilities

Impact BI-Y: Direct and Indirect Impacts to Active Migratory Bird Nesting

The Campo Wind Facilities could impact nesting birds protected under the MBTA during initial construction and ongoing maintenance. If any active nests or the young of nesting special-status bird species protected under the MBTA are impacted through direct grading on the Reservation, these impacts would be **potentially significant** (**Impact BI-Y**). Refer to the EIS for MBTA nesting bird impact information.

Guideline L (Eagles)

Project

The Project would not have site-specific impacts on golden eagle nesting. Impacts to suitable foraging habitat for eagles within the Boulder Brush Corridor (**Impact BI-26)** would be **significant**.

Boulder Brush Facilities

Impact BI-26: Direct Impacts to Golden Eagle Foraging

Impacts to approximately 69.8 acres of suitable foraging habitat for eagles on Boulder Brush Corridor would be **potentially significant** (**Impact BI-26**). Based on the low golden eagle use on site for foraging, potential collision impacts while foraging are considered less than significant. Since the Boulder Brush Facilities development footprint is not located within 4,000 feet of nesting golden eagle, the Boulder Brush Facilities would not have site-specific impacts on golden eagle nesting. The Boulder Brush Facilities is not expected to cause take of eagles pursuant to the Bald and Golden Eagle Protection Act.

Campo Wind Facilities

Impact BI-G: Direct Impacts to Golden Eagle Foraging

Based on the low golden eagle use within the Campo Corridor for foraging are considered **less than significant**. The Campo Wind Facilities would result in impacts to approximately 785.7 acres of suitable foraging habitat for raptors, including eagles. Based on the low golden eagle use on site for foraging there is low potential for collision impacts while foraging. Impacts to eagle foraging (and therefore eagles themselves) would be **less than significant** because the overall impacts would be less than 5% of the total Reservation Boundary.

2.3.4 Cumulative Impact Analysis

Geographic Extent

The geographic extent for the analysis of cumulative impacts associated with biological resources includes the vicinity of all reasonably foreseeable cumulative projects and ecological boundaries based on ecoregions. An ecological review and analysis of eastern San Diego County and western Imperial County was performed. A review of watersheds ecoregion data, and bioregion data was collected and studied. Map review and analysis included the San Diego Plant Atlas ecoregion maps and data (SDNHM 2018), Calflora maps and data (Calflora 2018), EPA watershed maps (EPA 2018a), EPA ecoregion maps (EPA 2018b), and Jepson bioregion maps (Jepson Flora Project 2018).

Within the extent of the cumulative projects, and after ecological analysis, the Peninsular Ranges of the California Floristic Province, as defined by the Jepson Flora project (2018), was determined to be the boundary for biological resources within the biological cumulative analysis study area (Figure 1-10, Cumulative Projects, and Figure 2.3-5, Biological Cumulative Study Area Vegetation).

The Peninsular Ranges eco-geographic extent was chosen because the geographic system developed by the Jepson Flora project "combines features of natural landscapes and biota to delimit the units, as opposed to using the often arbitrary and unnatural boundaries of counties for that purpose. The Jepson geographic system most importantly reflects broad patterns of natural vegetation (and, at a finer scale, more specific plant assemblages), geology, topography, and climate" (Jepson Flora Project 2018). In addition, habitat within the Peninsular Ranges comprises a variety of ecoregions, allowing for a range for the analysis of wildlife. The southern mountain ecoregion, south desert slopes, central mountains, and portions of the southern foothills are all represented within the peninsular ranges (SDNHM 2018).

The Peninsular ranges of the Jepson Flora project exclude the southern desert lowlands (SDNHM 2018). Southern desert lowland flora was considered to be subsequently dissimilar to the southern mountain region, south desert slopes, and central mountains and southern foothills based on an analysis of flora and fauna (SDNHM 2018).

The biological cumulative analysis study area is discussed in the "Existing Cumulative Conditions" section that follows. Refer to Table 1-4, Cumulative – Reasonably Foreseeable, Approved, and Pending Projects, in Chapter 1, Project Description, of this EIR for details.

Existing Cumulative Conditions

Southeastern San Diego County is considered a transition zone between eco-geographic regions. The California Floristic Province occurs in the biological cumulative analysis study area, which encompasses a majority of California west of the extreme dry regions. Within the California Floristic Province, the Peninsular Ranges subregion (i.e., an area of similar climatic and plant community associations) stretches from southern Los Angeles County along the valley, foothills, and mountains south to Baja California, Mexico (Jepson Flora Project 2018).

In the western and central portion of the biological cumulative analysis study area in and around the McCain Valley, the mountain and foothill areas are characterized by a mosaic of chaparral and scrub communities that grade into oak woodlands and grasslands in the valleys. Many of the valleys are also characterized by grazing uses and rural residential development. The biological cumulative analysis study area primarily includes transmission projects, large-scale renewable energy development (wind and solar), and residential and communications development in eastern San Diego County. The assemblage of plant and wildlife species, including special-status species, in the western and central portion of the biological cumulative analysis study area is largely the same as that identified for the Project (Calflora 2018; EPA 2018a, 2018b; Jepson Flora project 2018; SDNHM 2018).

Cumulative Methodology

The cumulative analysis conducted for biological resources is based on the list method and considers relevant projects from Table 1-4. Figure 1-10 shows the extent of the biological cumulative analysis study area. Projects from the past, projects that are reasonably foreseeable, projects already approved, and projects pending are included.

Reasonably foreseeable cumulative projects located in the western, central, and southeastern portion of the biological cumulative analysis study area (within San Diego County), as previously described, have the potential to affect similar vegetation communities as the Project, and, therefore, could cumulatively contribute to impacts within natural vegetation communities in this region, or to impacts to species that are associated with these habitat types. Of the cumulative projects listed in Table 2.3-7, Cumulative – Vegetation Communities, the following projects would potentially affect biological resources within the biological cumulative analysis study area:

Completed: Kumeyaay Wind, Tule Wind, Energia Sierra Juarez transmission, Energia Sierra Juarez wind project, ECO Substation, Golden Acorn Casino and Travel Center, Boulevard Fire Station, Jacumba Solar

Approved: VZW-1-8 Boulevard, Freedom Ranch

Under Review: Rough Acres Foundation Campground Facility, Boulevard Solar, Boulevard Energy Storage, JVR Energy Park (solar energy facility), Rugged Solar, Torrey Wind

The locations of these cumulative projects are shown in Figure 1-10.

Reasonably foreseeable cumulative projects located east of the biological cumulative analysis study area are not included because they would affect more arid vegetation communities (southern desert lowlands) (Plant Atlas Eco Region 2018) than those present on the Project Site; therefore, the Project would not cumulatively contribute to impacts within natural vegetation communities of the arid regions (southern desert lowlands) or impact species that are associated with these arid (southern desert lowlands) habitat types.

The cumulative analysis for wildlife movement and local and regional planning is similarly limited to the biological cumulative analysis study area. Since the biological cumulative analysis study area is largely undeveloped, wildlife movement through and around the reasonably foreseeable cumulative project areas would still be possible. Despite development of the reasonably foreseeable cumulative projects, the area would remain predominantly rural with significant undeveloped areas and wildlife movement opportunity.

2.3.4.1 Candidate, Sensitive, or Special-Status Species

Special-Status Plant Species

Direct

The Project Site is characterized by a diverse assemblage of vegetation communities (see Table 2.3-7 for vegetation communities and associated acreage in the Project Site) that support or have the potential to support special-status plant species. Construction of the Boulder Brush Facilities would result in the permanent direct loss of individuals of special-status plant species (County List A - Jacumba milk-vetch, southern jewelflower, and Tecate tarplant; County List B – desert beauty and sticky geraea; and County List D – Colorado desert larkspur), indirect effects to special-status plant species, and the loss of suitable habitat for special-status plant species. However, implementation of mitigation measures for the Boulder Brush Facilities would reduce potentially significant impacts to special-status species to less than significant. The Campo Wind Facilities would likely result in the permanent direct loss of individuals of special-status plant species, but these impacts cannot be quantified because location information for special-status plants identified during surveys in 2010 and 2011 for the Shu'luuk Wind project is not available. Impacts to non-federally listed plants on the Reservation (e.g., County List A or B species) are not subject to the mitigation requirements in the County guidelines. Therefore, the permanent direct impacts to County List A and B plant individuals would not be mitigated. Permanent direct impacts to special-status plants would be significant and unavoidable. For a cumulative impact to special-status plant species to occur, the cumulative projects would have to result in the loss of the same special-status plant species or their habitat as the proposed project such that those species become more limited in their distribution, population size, or available suitable habitat within the biological cumulative analysis study area. The cumulative projects that occur in the biological cumulative analysis study area are estimated to result in 2,893 acres of disturbance to similar vegetation communities and land covers as the Project and would have the potential to impact the same special-status plant species as the Project (Table 2.3-7).

Many of the occurring or potentially occurring special-status plant species in the biological cumulative analysis study area are found only in and around the biological cumulative analysis study area. The Project, combined with the reasonably foreseeable cumulative projects listed in Table 1-4, despite species avoidance, minimization, and mitigation measures that would likely be implemented by each project, would have the potential to reduce the distribution and/or the overall population size of one or more of these special-status plant species, such that they are vulnerable to environmental variability and are at a higher risk of becoming imperiled. The Project and the reasonably foreseeable projects are geographically oriented within the center of the distribution of these species in the region such that the cumulative projects, including impact contributions from the Project, have the potential to result in a reduced distribution of the special status species in the region. Therefore, potential cumulative project impacts to special status plants and vegetation communities would be **significant** (**Impact BI-CU-1**).

Indirect

Invasive Plant Species

Ground-disturbing activities and increased vehicle and human uses associated with construction of the Project have the potential to introduce and spread invasive, non-native, and noxious plant species in the area, which is generally characterized by undisturbed native vegetation communities with low levels of invasive and noxious plant species. The introduction of invasive, non-native, or noxious plant species resulting from the Project would result in potentially significant indirect impacts.

For a cumulative impact related to the introduction and spread of invasive, non-native, or noxious plant species to occur, reasonably foreseeable cumulative projects would have to result in the introduction and spread of these species across the biological cumulative analysis study area. The biological cumulative analysis study area is a largely undeveloped area characterized by large expanses of undisturbed native vegetation communities. The listed cumulative projects have the potential to result in impacts to the introduction and spread of invasive, non-native, or noxious plant species due to the cumulative increase in ground disturbance in undeveloped native vegetation communities (as discussed above, the total estimate of disturbance in the biological cumulative analysis study area to vegetation as a result of reasonably foreseeable cumulative projects was determined to be approximately 2,367.4 acres plus the Project's 920.2 acres). Therefore, potential cumulative indirect Project invasive species impacts to special status plants would be **significant** (**Impact BI-CU-2**).

Fugitive Dust

For a cumulative impact related to construction dust generation resulting in vegetation degradation to occur, the reasonably foreseeable cumulative projects would have to be constructed at the same time and in proximity to each other. The listed cumulative projects within the biological cumulative analysis study area involve a variety of project types. Additionally, most of the biological cumulative analysis study area is characterized by undisturbed native vegetation communities. Construction of some cumulative projects may partially overlap or would be completed prior to commencement of Project construction activities, and impacts would be less severe than if they were constructed simultaneously. If all of the reasonably foreseeable cumulative projects (listed in Table 2.3-7) in proximity to the Project were to be constructed simultaneously, substantial dust generation could degrade nearby plant species. Therefore, cumulative indirect dust project impacts to special status plants would be **potentially significant** (**Impact BI-CU-2**).

2.3.4.2 Special-Status Wildlife Species

Direct

For a cumulative impact to special-status wildlife species to occur, the cumulative projects would have to result in the loss of the same special-status wildlife species or their habitat as the proposed project such that those species become more limited in their distribution, population size, or available suitable habitat within the biological cumulative analysis study area. The listed cumulative projects that occur in the biological cumulative analysis study area would have the potential to impact the same special-status wildlife species as the proposed project due to a similar climate and similar distribution of vegetation communities. As stated previously, the total estimated area of disturbance of the proposed project would be 920.2 acres and the biological cumulative analysis study area would be 2,367.4 acres.

As described above, the biological cumulative analysis study area includes the Peninsular Ranges eco-geographic extent as defined by the Jepson Flora project (Jepson Flora Project 2018). To analyze potential cumulative impacts to wildlife species, a habitat-based approach was used, which provides an overall view of suitable habitats within the biological cumulative analysis study area. Similar to plants, the habitat model included suitable vegetation communities that are being impacted within the biological cumulative analysis study area, and known elevation ranges for the wildlife species. The habitat data utilized includes the vegetation communities, elevation ranges, total suitable acreage in the biological cumulative analysis study area, total impacted acreage, and a discussion of the results. The Project, combined with the reasonably foreseeable cumulative projects, would have the potential to reduce the distribution and/or the overall population size of one or more special-status wildlife species. However, impacts to these County Group 1 and/or CDFW SSC species would be less than significant given the large amount of remaining habitat in the region, as well as implementation of all required minimization and mitigation measures during federal and state permitting (e.g., Quino checkerspot butterfly). The Project Area is not located within a Quino checkerspot butterfly Recovery Unit nor is it within a core occurrence complex identified in the Recovery Plan (USFWS 2003) or Recovery Plan Amendment (USFWS 2019). Therefore, the Project would **not contribute to a cumulatively considerable significant impact**.

Indirect

Given the nature, location, and timing of the reasonably foreseeable cumulative projects, the potential for cumulatively significant indirect construction-related impacts is low. Further, all projects are required to adhere to specific minimization and mitigation measures, such as dust control and water quality standards. Reasonably foreseeable cumulative projects within the biological cumulative analysis study area involve a variety of project types. Projects within a few miles of the Project Site are generally not anticipated to be constructed simultaneously. Rough Acres

Campground project is currently under construction (2 miles away); VZW I-8 Boulevard project has already been approved and will be constructed prior to the Project (2.5 miles away); and Torrey Wind is currently pending completion of the environmental analysis (adjacent to the Project Site).

Construction of the Torrey Wind cumulative project, which is adjacent to the Project Site, may have overlap with the Project's construction schedule, in which case increased human presence, vehicle traffic, and construction noise could cause wildlife behavior modifications and avoidance of the area. These disruptions could result in changes in habitat usage and potentially affect species fitness and productivity. The potential mortality resulting from increased vehicle use in the area and construction area hazards (e.g., trenches) across the Project Site and listed cumulative project areas could lead to decreased population numbers and reduced productivity.

However, the Project and other reasonably foreseeable cumulative projects are located in a rural area, and adjacent properties provide undeveloped areas for wildlife to move freely or evacuate. Additionally, there is suitable habitat available for wildlife species on portions of the Project Site and throughout the biological cumulative analysis study area. Although the Torrey Wind construction schedule has the potential to overlap with the Project, environmental review and permitting would require the Torrey Wind project to mitigate any potentially significant impacts, which would further reduce any cumulatively considerable effects. The Project would **not contribute to a cumulatively considerable significant impact**.

2.3.4.3 Riparian Habitat or Sensitive Natural Community

The reasonably foreseeable cumulative projects listed in Table 1-4 have the potential to result in adverse impacts to vegetation communities. Reasonably foreseeable cumulative projects have the potential to affect more than 2,367.4 acres of vegetation communities and land covers within the biological cumulative analysis study area. For cumulative effects to occur, cumulative projects would have to result in the loss of the same vegetation communities as the proposed project such that those vegetation communities become limited in acreage or extent within the biological cumulative analysis study area. Additionally, a cumulative impact to native vegetation communities could occur if the cumulative projects use all available land for mitigation such that the loss of native vegetation communities cannot be adequately compensated for within the biological cumulative analysis study area.

The Project would impact approximately 920 acres of vegetation communities and land covers. Many of the vegetation communities impacted by the proposed Project are similar to those impacted by the other cumulative projects in the region. Impacts to chaparral account for more than 50% of the total cumulative project impacts, which is consistent with the relatively common distribution of this vegetation community in the region (there is more than 350,000 acres of chaparral in the biological cumulative analysis study area). Impacts to other vegetation communities vary, but are generally similar between the Project and the other cumulative projects.

The proposed Project's impacts to vegetation communities would total approximately 0.18% of the biological cumulative analysis study area. The Project combined with the reasonably foreseeable cumulative projects would impact approximately 0.66% of the biological cumulative analysis study area. Therefore, the Project, combined with the reasonably foreseeable cumulative projects in the biological cumulative analysis study area, would contribute incrementally to adverse impacts on vegetation communities. However, the cumulative scenario would impact less than 1% of the total biological cumulative analysis study area; therefore, vegetation communities would not become limited in acreage or extent within the biological cumulative analysis study area. Therefore, the Project would **not contribute to a cumulatively considerable significant impact**.

2.3.4.4 Wildlife Movement

A cumulative impact to linkages or wildlife movement corridors, the movement of fish, and/or native wildlife nursery sites would occur if the listed cumulative projects, combined with the Project, result in constraining or blocking known habitat linkages or result in a cumulative barrier to wildlife movement through the biological cumulative analysis study area. The biological cumulative analysis study area encompasses a largely undeveloped landscape with few barriers to movement except for (I-8); the United States/Mexico border fence; and, to a lesser extent, scattered rural development and property fencing.

Reasonably foreseeable projects that occur in the biological cumulative analysis study area could potentially inhibit wildlife movement. Several of the larger reasonably foreseeable projects in the biological cumulative analysis study area, including the approximately 12,000-acre Tule Wind project, could block wildlife movement (particularly for avian species) due to their size and location (e.g., along an avian flyway or migration route); however, there are no known or defined wildlife movement corridors in the biological cumulative analysis study area, and these reasonably foreseeable project sites would not cumulatively impede wildlife movement.

The Project combined with the listed cumulative projects (Table 1-4) would result in energy-related and other development throughout the McCain Valley and along the Tecate Divide from the northern end of the Project Site south to the United States/Mexico border. Although this has the potential to disrupt wildlife movement patterns for wildlife species using the McCain Valley and surrounding ridgelines (in particular, typical wide-ranging terrestrial species including mule deer, mountain lion, bobcat, and coyote), the biological cumulative analysis study area is largely undeveloped, and wildlife movement through and around the reasonably foreseeable cumulative project sites would still be possible. Despite development of the reasonably foreseeable cumulative projects, the area would remain predominantly rural with significant undeveloped areas and wildlife movement opportunity. Additionally, the total acreage of vegetation communities analyzed in the biological cumulative analysis study area is approximately 499,048 acres, and the Project combined with reasonably foreseeable cumulative projects would only impact approximately 0.67% of the total acreage. Therefore, impacts from the Project combined with potential impacts from the reasonably foreseeable projects, would **not be cumulatively considerable**.

2.3.4.5 Local Policies, Ordinances, and Adopted Plans

A cumulative impact to regional planning would occur if the reasonably foreseeable cumulative projects, combined with the proposed project, conflict with one or more local policies or ordinances protecting biological resources. As stated above in Section 2.3.3, the Project would be consistent with all local policies, ordinances, and plans after the implementation of mitigation.

In addition, as stated above, the Project would not preclude or prevent preparation of the subregional NCCP because the Project was designed in accordance with the planning principles of the East County MSCP and in consideration of preparation of the East County MSCP Plan. Other projects within the biological cumulative analysis study area would, similar to the Project, be within the East County MSCP Plan area. The County and wildlife agencies review projects using the interim processing guidelines in Section 6.6 and Exhibit B of the MSCP East (and North) Planning Agreement and the Focused Conservation Areas map. Those projects that achieve conservation requirements when that review is completed are deemed consistent with the East County MSCP Plan's Preliminary Conservation Objectives. Therefore, reasonably foreseeable projects, in combination with the proposed project, would not result in a cumulatively significant conflict with local policies, ordinances, or plans.

As indicated above in Section 2.3.3.6, the Project would not have a potentially significant impact related to biological resources identified for conservation by the Camp Band of Mission Indians land use plan (Campo Band of Mission Indians 2010). Impacts would not be cumulatively increased considering the other cumulative projects are not subject to this Reservation land use plan with the exception of the Golden Acorn project. The Golden Acorn project is located outside of the designated preserve area, and impacts were minimized to the maximum extent feasible by locating the project adjacent to I-8. Because each project would minimize impacts to the extent feasible, the cumulative impact would be **less than significant**.

2.3.5 Significance of Impacts Prior to Mitigation

Candidate, Sensitive, or Special-Status Species

Project

The Project would result in **potentially significant impacts** to federally listed Quino checkerspot butterfly (**Impact BI-1** and **Impact BI-A**), state and County special-status plant species (**Impact BI-2** and **Impact BI-3**, and **Impact BI-B** and **Impact BI-C**), state and county special-status wildlife species (**Impact BI-4** through **Impact BI-7**, and **Impact BI-D** through **Impact BI-G**), special-status plants and special-status wildlife species (**Impact BI-9** through **Impact BI-12**, and **Impact BI-H** through **Impact BI-K**), nesting raptors (**Impact BI-13** and **Impact BI-L**).

Boulder Brush Facilities

Impacts to potentially occupied habitat for Quino checkerspot butterfly known to occur in the Boulder Brush Corridor would be **potentially significant** (**Impact BI-1**). No impact to a federally listed plant species would occur within the Boulder Brush Corridor, as none are present.

The Boulder Brush Facilities would result in potentially significant impacts to state and County special-status plant species, including Tecate tarplant, Jacumba milk-vetch, sticky geraea, southern jewelflower, Tecate tarplant, and desert beauty. These impacts to special-status plant species would be **potentially significant** (**Impact BI-2**). The Boulder Brush Facilities would also have **potentially significant impacts** to these special-status plant species related to construction outside of the impact area if proper measures are not implemented (**Impact BI-3**).

The Boulder Brush Facilities would result in impacts to State and County special-status wildlife species, including Coronado skink, San Diego ringneck snake, rosy boa, California horned lark, merlin, barn owl, western bluebird, mule deer, cougar, and small-footed myotis. In addition, the Boulder Brush Facilities would potentially impact the following special-status species that have a high potential to occur within the Boulder Brush Corridor: San Diegan tiger whiptail, Blainville's horned lizard, coast patch-nosed snake, San Diego black-tailed jackrabbit, and San Diego desert woodrat. Temporary direct impacts to these special-status wildlife species during construction **(Impact BI-4**) and permanent impacts during construction (**Impact BI-5**) would be **potentially significant**. The Boulder Brush Facilities would also have **potentially significant impacts** to special-status wildlife species due to construction outside of the impact area if proper measures are not implemented (**Impact BI-6**). The Off-Reservation gen-tie line would also result in **potentially significant** permanent impacts related to electrocution of sensitive avian species including migratory birds (**Impact BI-7**) and to raptor foraging (**Impact BI-8**).

Potentially significant indirect temporary and indirect permanent impacts may also occur to special-status plants and special-status wildlife species within the Boulder Brush Corridor (**Impact BI-8** through **Impact BI-12**).

Nesting raptors could also be **potentially significantly** impacted by Boulder Brush Facilities construction if it were to occur during the raptor breeding season (**Impact BI-13**).

Campo Wind Facilities

The Campo Wind Facilities would result in direct impacts to potentially occupied Quino checkerspot butterfly habitat on the Reservation. Impacts to Quino checkerspot habitat would be **potentially significant** (**Impact BI-A**).

The Campo Wind Facilities would result in potentially significant impacts to state and County special-status plant species, including Tecate cypress, Jacumba milk-vetch, sticky geraea, southern jewelflower, Tecate tarplant, and desert beauty. Direct impacts to special-status plant species on the Reservation would be **significant** (**Impact BI-B**). In addition, potential impacts to these special-status plant species on the Reservation due to construction outside of the impact area would also be **significant** if proper measures are not implemented (**Impact BI-C**).

The Campo Wind Facilities would result in potential impacts to State and County special-status wildlife species on the Reservation, including San Diegan tiger whiptail, San Diego banded gecko, Blainville's horned lizard, coast patch-nosed snake, Cooper's hawk, Bell's sage sparrow, loggerhead shrike, yellow warbler, western red bat, San Diego black-tailed jackrabbit, and San Diego desert woodrat. The Campo Wind Facilities would result in permanent direct impacts to habitat for these special-status wildlife species during construction, which would result in a **significant impact (Impact BI-D**). The On-Reservation (i.e., anything within the Reservation Boundary) gen-tie would also result in potentially significant permanent impacts related to electrocution of birds (**Impact BI-F**) and the Project turbines would potentially result in avian collisions (**Impact BI-E**). A loss of raptor foraging habitat would also occur as a result of Campo Wind Facilities; however this would be a **less-than-significant impact** (**Impact BI-G**) because less than 5% of the raptor foraging habitat on the Reservation, as well as the entire Project Site, would be impacted.

Potentially significant indirect temporary and indirect permanent impacts would occur to special-status plants and special-status wildlife species as a result of Campo Wind Facilities (**Impact BI-H** through **Impact BI-K**).

Nesting raptors could also be **potentially significantly** impacted by Campo Wind Facilities construction if it were to occur during the raptor breeding season (**Impact BI-L**).

Riparian, Habitat or Sensitive Natural Community

Project

The Project would result in impacts to sensitive vegetation communities and jurisdictional aquatic resources. The loss of sensitive vegetation communities would be **significant** (**Impact BI-14** through **Impact BI-22** and **Impact BI-M** through **Impact BI-R**).

Boulder Brush Facilities

The Boulder Brush Facilities would result in impacts to approximately 122.8 acres of sensitive vegetation communities. Of the approximately 122.8 acres of Boulder Brush Corridor impacts, approximately 38.3 acres would be permanently impacted by the placement of structures and

roads, and approximately 84.9 acres would be temporarily impact and be revegetated following Project construction. It is noted that all approximately 122.8 acres of impacted sensitive habitat is considered permanent for this analysis, as the Project does not include a revegetation plan with enforceable success criteria, since temporary impacts are considered permanent under County policy. The loss of County sensitive vegetation communities within Boulder Brush Corridor would be **potentially significant** (**Impact BI-14**). In addition, the Boulder Brush Facilities also may result in **potentially significant impacts** if habitat was impacted outside the impact boundary if proper measures are not implemented (**Impact BI-15**), or if **potentially significant** temporary and permanent indirect impacts occur to County sensitive habitats (**Impact BI-19** and **Impact BI-21)**.

The Boulder Brush Facilities would result in impacts to jurisdictional habitat. The Boulder Brush Facilities would involve temporary impacts to 0.70 acres (of jurisdictional aquatic resources and permanent impacts to 0.27 acres of jurisdictional aquatic resources. This direct impact to jurisdictional aquatic resources would be **potentially significant** (**Impact BI-16**). **Potentially significant impacts** to jurisdictional aquatic resources within Boulder Brush Corridor could also occur if impacts extend outside the impact area (**Impact BI-17**). In addition, **potentially significant** temporary indirect (**Impact BI-18**), and indirect permanent impacts (**Impact BI-19**) could also occur. Impacts would also be **potentially significant**, as the Boulder Brush Facilities could result in impacts to RPO wetland and wetland buffers (**Impact BI-22**).

Campo Wind Facilities

Approximately 740.45 acres of impacts would occur to sensitive vegetation communities within the Campo Corridor. This impact would be **significant** (**Impact BI-M**). In addition, the Campo Wind Facilities also may result in **potentially significant impacts** if habitat was impacted outside the impact boundary if proper measures are not implemented (**Impact BI-N**) within the Campo Corridor. **Potentially significant** temporary and permanent indirect impacts would also occur to County sensitive habitats within the Campo Corridor (**Impact BI-S** and **Impact BI-T)**.

Impacts to ACOE jurisdictional aquatic resources consisting of approximately 1.81 acres (9,038 linear feet) within the Campo Corridor would be **potentially significant** (**Impact BI-O**). **Potentially significant** jurisdictional impacts may also result from impacts outside of the impact area (**Impact BI-P**) within the Reservation. **Potentially significant** indirect temporary effects (**Impact BI-Q**) and indirect permanent effects (**Impact BI-R**) would also occur within the Campo Corridor. Impacts would also be **significant**, as the Campo Corridor could result in impacts to RPO wetland and wetland buffers (**Impact BI-U**).

Jurisdictional Wetlands and Waterways

Project

The Project would result in **potentially significant** temporary and permanent direct impacts to jurisdictional aquatic resources (**Impact BI-15** through **Impact BI-19**, and **Impact BI-O** through **Impact BI-R**).

Boulder Brush Facilities

The Boulder Brush Facilities would result in **potentially significant** temporary and permanent direct impacts to jurisdictional aquatic resources, including wetlands, as defined by Section 404 of the Clean Water Act related to construction of Boulder Brush Facilities (**Impact BI-15** through **Impact BI-19**).

Campo Wind Facilities

The Campo Wind Facilities would result in **potentially significant** temporary and permanent direct impacts to jurisdictional aquatic resources, including wetlands, as defined by Section 404 of the Clean Water Act related to construction of the Campo Wind Facilities (**Impact BI-O** through **Impact BI-R**).

Refer to the EIS for information about Campo Wind Facilities federal waters impacts.

Wildlife Movement and Nursery Sites

Project

The Project has potential for temporary direct impacts within the Boulder Brush Corridor (**Impact BI-23** and **Impact BI-24**) during construction, and impacts would be **potentially significant** to migratory birds within Campo Corridor (**Impact BI-V** through **Impact BI-X**).

Boulder Brush Facilities

The Boulder Brush Facilities would have **less-than-significant impacts** related to wildlife corridors. However, the Boulder Brush Corridor does qualify as a County Core Wildlife area. While direct operational impacts would be less than significant since wildlife would continue to move throughout the area, the Boulder Brush Facilities has the potential for **potentially significant** temporary direct impacts (**Impact BI-23**) during construction that could significant affect the County Wildlife Core area. In addition, the Off-Reservation gen-tie line could present collision or electrocution risks to migrating birds, which would be **potentially significant** (**Impact BI-24**).

Campo Wind Facilities

The Campo Wind Facilities would not prevent any existing terrestrial wildlife movement within the Campo Corridor. The chance for wildlife collisions/electrocution is very low and potential impacts would be **less than significant** (**Impact BI-W**). However, migratory birds would be at risk for collisions with the turbines, met towers and gen-tie line and these impacts from the Campo Wind Facilities would be **potentially significant** (**Impact BI-X**). Potential temporary direct impacts to foraging and breeding habitat within the Campo Corridor would be **potentially significant** (**Impact BI-V**) during construction that could significantly affect the County Wildlife Core area.

Local Policies, Ordinances, and Adopted Plans

Project

The Boulder Brush Facilities would not conflict with the County RPO and other County Guidelines and would not preclude or prevent the preparation of the future East County MSCP Plan. The Campo Wind Facilities are subject to the land use and permitting jurisdiction of the Tribal government and BIA. However, under the Campo Lease, Tribal regulations and plans such as the Campo Land Use Code and Campo Land Use Plan are not applicable to the Campo Wind Facilities. Project impacts to migratory birds and eagles within Boulder Brush Corridor (**Impact BI-25** and **Impact BI-26**) and Campo Corridor (**Impact BI-Y** and **Impact W-X**) are discussed below.

Boulder Brush Facilities

The Boulder Brush Facilities would not preclude or prevent the preparation of the subregional NCCP. The Boulder Brush Facilities also has potential to result in indirect construction and operational impacts to RPO wetlands. The Boulder Brush Facilities conforms to the goals and requirements as outlined in the East County MSCP Planning Agreement Conservation Objectives. However, the Boulder Brush Facilities have potential to result in impacts to migratory birds nesting within Boulder Brush Corridor (**Impact BI-25**) and suitable foraging habitat for eagles within the Boulder Brush Corridor (**Impact BI-26**).

Campo Wind Facilities

The Campo Wind Facilities would minimize to the extent feasible impacts to identified sensitive riparian, woodland and federally protected species within designated preserve areas in a manner consistent with the Campo Band of Mission Indians Land Use Plan. Thus, the Campo Wind Facilities would not result in a land use plan conflict that would result in significant physical environmental impacts. However, the Campo Wind Facilities have potential to result in impacts to migratory birds nesting within the Campo Corridor (**Impact BI-Y**) and suitable foraging habitat for eagles within the Campo Corridor (**Impact BI-G**).

Cumulative Impacts

Project impacts to sensitive plants and vegetation communities would combine with other cumulative projects in the region, and would result in a potentially significant cumulative impact (**Impact BI-CU-1**). In addition, cumulative indirect impacts related to invasive species and dust would result in cumulatively significant impacts (**Impact BI-CU-2**).

2.3.6 Mitigation Measures

Boulder Brush Facilities

The following mitigation shall be implemented to reduce impacts associated with the Boulder Brush Facilities component of the Project to below a level of significance.

M-BI-1 through **M-BI-16** shall be required as part of the County's MUP approval to address impacts identified associated with the Boulder Brush Facilities.

M-BI-1 **Implementation of USFWS-Issued Terms and Conditions for Quino Checkerspot Butterfly.** All terms and conditions developed as part of the Section 7 consultation process with the U.S. Fish and Wildlife Service (USFWS) and provided in the Project's Biological Opinion shall be implemented. Terms and conditions shall apply to federally listed species that may be impacted by the Project. Ratios for habitat-based mitigation shall be determined during the Section 7 consultation process. The mitigation shall focus on habitat preservation and creation for long-term conservation of metapopulation dynamics. Habitat mitigation ratios will be determined through the Section 7 consultation. Terms and conditions outlined in the Project's Biological Opinion shall take precedence over the measures outlined herein to the extent there is conflict between the two.

(a) Temporary Construction Flagging/Fencing and Signage. Construction flagging/fencing and signage will be installed, per USFWS requirements when construction of the Project occurs immediately adjacent to mapped occupied Quino checkerspot butterfly habitat to prevent unnecessary intrusion into occupied Quino checkerspot butterfly habitat. Signage shall be installed where high-use areas of the Boulder Brush Facilities border suitable Quino checkerspot butterfly habitat to prevent intrusion into sensitive habitat and remind personnel of restrictions regarding activities within these areas.

M-BI-2 **Biological Monitoring.** To prevent inadvertent disturbance to areas outside the limits of grading, fencing or flagging, as required, shall be installed and all grading shall be monitored by a biologist in environmentally sensitive areas. A biologist (Project Biologist) approved by the County of San Diego (County) shall be

contracted to perform biological monitoring during all grading, clearing, grubbing, trenching, construction, and decommissioning activities.

The Project Biologist shall perform the monitoring duties before, during, and after construction pursuant to the most current version of the County's Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources (County Guidelines). The contract provided to the County shall include an agreement that this shall be completed, and a Memorandum of Understanding between the biological consulting company and the County shall be executed. In addition to performing monitoring duties pursuant to the most current version of the County Guidelines, the Project Biologist shall also perform the following duties:

1. A Worker Environmental Awareness Program (WEAP) would be prepared for construction contractors and all on-site personnel. WEAP training would cover the sensitive resources found on site, flagging/fencing of exclusion areas, permit requirements, and other environmental issues and permit constraints. The WEAP would also educate and instruct on-site personnel to avoid harassment and disturbance of wildlife, especially during reproductive activities (e.g., courtship and nesting) during construction. In addition, temporary personnel delivering equipment and supplies to the Project Site will be aware of the requirements and required to comply with the WEAP training, including, but not limited to, speed limit, stopping for wildlife observed in the access road, driving within the approved project right-of-way, observing bird buffer signs and not stopping within the buffers, and driving slower than the approved project speed limit, should dust occur on the access road. All on-site personnel would be required to attend the WEAP training in conjunction with hazard and safety training prior to working on site.
2. Attend the preconstruction meeting with the construction contractor and other key construction personnel prior to clearing, grubbing, or grading to reduce conflict between the timing and location of construction activities with other mitigation requirements (e.g., seasonal surveys for nesting birds).
3. Conduct meetings with the construction contractor and other key construction personnel describing the importance of restricting work to designated areas prior to clearing, grubbing, or grading and clarifying that the Project Biologist has the authority to halt work that could harm or harass a protected species.
4. Review and/or designate the construction area in the field with the construction contractor in accordance with the final grading plan prior to clearing, grubbing, or grading.

5. Conduct a field review of the staking to be set by the surveyor, designating the limits of all construction activity prior to clearing, grubbing, or grading.
6. Flush special-status species (i.e., avian or other mobile species) from occupied habitat areas immediately prior to brush-clearing and earth-moving activities.
7. To address hydrology impacts, the Project Biologist shall verify that grading plans include a Stormwater Pollution Prevention Plan (if required pursuant to provisions of the State Water Resources Control Board 2009-0009-DWQ Construction General Permit, or equivalent applying the standards set forth in the County of San Diego Stormwater Standards Manual); see **M-BI-4**.
8. Periodically monitor the construction site to see that dust is minimized according to the fugitive dust control measures delineated in M-AQ-2 and M-AQ-3 and that temporary impacted areas are revegetated as soon as possible.
9. Periodically monitor the construction site to verify that artificial security light fixtures are directed away from open space and are shielded.
10. Oversee the construction site so that cover and/or escape routes for wildlife from excavated areas are provided on a daily basis. All steep trenches, holes, and excavations during construction shall be covered at night with backfill, plywood, metal plates, or other means, and the edges covered with soils and plastic sheeting such that small wildlife cannot access them, and/or excavations shall provide an earthen ramp to allow for a wildlife escape route.

M-BI-3 **Temporary Construction Flagging/Fencing.** Prior to issuance of grading or building permits, the Boulder Brush Developer or its designee shall install temporary flagging or fencing, as required, where the limits of grading are adjacent to sensitive vegetation communities or jurisdictional aquatic resources. Temporary flagging or fencing, as required, will also be installed for areas where Boulder Brush Facilities impacts are adjacent to a population of special-status plant species. Temporary flagging or fencing shall remain in place for the duration of construction activities. All temporary flagging/fencing shall be shown on plans and a Fencing and Flagging Plan will be prepared and submitted to applicable agencies for review prior to construction. Access roads would be staked at the outermost perimeter of 40 feet, to ensure no project personnel go beyond these boundaries. Stakes would be placed every 200 feet in accordance with industry standards. Additionally, all on-site construction workers performing ground disturbance activities would be equipped with GPS units that would clearly delineate the limits of grading.

M-BI-4 **SWPPP.** If required, the Stormwater Pollution Prevention Plan (SWPPP) shall include, at a minimum, the best management practices listed below. The combined

implementation of these requirements shall protect adjacent habitats and special-status species during construction to the maximum extent practicable. At a minimum, the following measures and/or restrictions shall be incorporated into the SWPPP and noted on construction plans, where appropriate, to avoid impacts to special-status species, sensitive vegetation communities, and/or jurisdictional waters during construction. The Project Biologist shall verify the implementation of the following design requirements:

1. No planting or seeding of invasive plant species (per the most recent version of the California Invasive Plant Council California Invasive Plant Inventory for the project region) shall be permitted.
2. Construction activity shall not be permitted in jurisdictional waters of the United States/state except as authorized by applicable law and permit(s), including permits and authorizations approved by the U.S. Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board.
3. Silt settling basins installed during the construction process shall be located away from areas of ponded or flowing water to prevent discolored, silt-bearing water from reaching areas of ponded or flowing water during normal flow regimes.
4. Temporary structures, staging, and storage areas for construction equipment and/or materials shall not be located in jurisdictional waters, including wetlands and riparian areas.
5. Any equipment or vehicles driven and/or operated within jurisdictional waters of the United States/state shall be checked and maintained by the operator daily to prevent leaks of oil or other petroleum products that could be deleterious to aquatic life if introduced to the watercourse.
6. No stationary equipment, such as motors, pumps, generators, and welders, or fuel storage tanks shall be located within 200 feet of jurisdictional waters of the United States/state.
7. No debris, bark, slash sawdust, rubbish, cement, concrete, oil, or petroleum products shall be stored where it may be washed by rainfall or runoff into jurisdictional waters of the United States/state.
8. When construction operations are completed, any excess materials or debris shall be removed from the work area.

9. No equipment maintenance shall be performed within 200 feet of jurisdictional waters of the United States/state where petroleum products or other pollutants from the equipment may enter these areas.
10. Fully covered trash receptacles that are animal-proof and weather-proof shall be installed and used by the operator to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Littering shall be prohibited and trash shall be removed from construction areas daily. All food-related trash and garbage shall be removed from the construction sites on a daily basis.

M-BI-5

(a) Pre-Construction Surveys. Pre-construction surveys for special-status plants and Quino checkerspot butterfly host plants will be conducted during the spring and summer within the portion of the Boulder Brush Facilities development footprint that has not been previously surveyed (approximately 2.6 acres). If any special-status plants are found, the Applicant shall develop a plant relocation plan for the open space (prepared by a biologist with at least 5 years of experience in rare plant relocation), with plant specimens grown on site or from local seed or cutting sources. The individuals shall be planted within the open space to secure a 2:1 mitigation ratio for any County List A species, and a 1:1 mitigation ratio for County list B species identified. The plant relocation plan shall require the Applicant to submit a revegetation plan, including annual monitoring reports for at least 5 years after the replanting to demonstrate that the plants have been successfully established at the required mitigation ratio.

If any Quino checkerspot butterfly host plants are found, the habitat model for Quino checkerspot butterfly shall be updated and additional mitigation for potentially occupied habitat may be required, as determined through M-BI-1.

(b) Habitat Preservation. To mitigate for impacts to vegetation communities and habitats for special-status wildlife species and occurrences of special-status plant species resulting from the Boulder Brush Facilities, suitable off-site mitigation land shall be acquired prior to issuance of grading or building permits. The Boulder Brush Developer shall purchase habitat credit or provide for the conservation of habitat generally consistent with the assemblage of vegetation communities impacted by the Boulder Brush Facilities. As proposed, the Boulder Brush Facilities is estimated to impact the following vegetation community acreages; however, the permanent open space acres shall be dependent on the actual temporary and permanent areas of impact. Montane buckwheat scrub (17.0 acres), red shank chaparral (18.3 acres), semi-desert chaparral (31.1 acres), and unvegetated stream channel (0.1 acres) would be mitigated at a 1:1 ratio; big sagebrush scrub (9.2 acres) would be

mitigated at a 2:1 ratio; wildflower field (3.7 acres), emergent wetland (0.2 acres), southern arroyo willow riparian forest (0.4 acres), coast live oak woodland (5.4 acres), open coast live oak woodland (0.1 acre), and oak root zone (7.3 acres) would be mitigated at a 3:1 ratio; and granitic northern mixed chaparral (33.4 acres), and granitic chamise chaparral (3.6 acres) would be mitigated at a 0.5:1 ratio. The permanent open space acres shall be dependent on the final as-built drawings. This shall mitigate for Boulder Brush Facilities impacts to sensitive vegetation communities, thereby preserving compensatory habitat that provides equal or greater benefit to plant and wildlife species. The off-site mitigation options are described below:

County List A and B species shall be mitigated based on impacts to individual plants. County List A plant species will be mitigated at 2:1, List B species are mitigated at 1:1 and impacts to List D species are not ratio based but will be through the preservation of suitable habitat. Therefore, mitigation for the loss of special-status plant species shall be as follows: 2:1 mitigation ratio for impacts to 111 Jacumba milk-vetch individuals, 20 southern jewelflower individuals, and 61 Tecate tarplant individuals; and 1:1 mitigation ratio for impacts to 1,308 desert beauty individuals and 203 sticky geraea individuals. Impacts to Colorado Desert larkspur will be mitigated through preservation of suitable habitat for the species. If additional special-status plant populations are recorded during the pre-construction surveys in the additional survey areas, the off-site mitigation site shall provide for any additionally required mitigation.

This shall mitigate for Boulder Brush Facilities impacts to sensitive vegetation communities, thereby preserving compensatory habitat that provides equal or greater benefit to plant and wildlife species. The off-site mitigation site will also provide for the preservation of known populations of special-status plants impacted by the Boulder Brush Facilities. The off-site mitigation options for the Boulder Brush Facilities are described below:

Option 1: If purchasing mitigation credit, the mitigation bank shall be approved by the Wildlife Agencies (i.e., U.S. Fish and Wildlife Service and California Department of Fish and Wildlife). The evidence of purchase shall include the following information to be provided by the mitigation bank:

1. A copy of the purchase contract referencing the project name and numbers for which the habitat credits were purchased.

2. If not stated explicitly in the purchase contract, a separate letter must be provided identifying the entity responsible for the long-term management and monitoring of the preserved land.
3. To ensure the land is protected in perpetuity, evidence must be provided that a dedicated conservation easement or similar land constraint has been placed over the mitigation land.
4. An accounting of the status of the mitigation bank. This shall include the total amount of credits available at the bank, the amount required by the project and the amount remaining after use by the project.

Option 2: If habitat credit cannot be purchased in a mitigation bank, then the Boulder Brush Developer shall provide for the conservation of habitat of the same amount and type of land located in San Diego County as required per County guidelines:

1. Prior to purchasing the land for the proposed mitigation, the location shall be pre-approved by the Department of Planning and Development Services (PDS).
2. A Resource Management Plan (RMP) shall be prepared and approved pursuant to the County of San Diego Report Format and Content Requirements: Biological Resources to the satisfaction of the Director of PDS.
3. An open space easement or deed restrictions over the land shall be dedicated to the County of San Diego or like agency to the satisfaction of the Director of PDS. The land shall be protected in perpetuity.
4. The purchase and dedication of the land and the selection of the Resource Manager and establishment of an endowment to ensure funding of annual ongoing basic stewardship costs shall be complete prior to the approval of the RMP.
5. In lieu of providing a private habitat manager, the Boulder Brush Developer may contract with a federal, state, or local government agency with the primary mission of resource management to take fee title and manage the mitigation land. Evidence of satisfaction must include a copy of the contract with the agency, and a written statement from the agency that (1) the land contains the specified acreage and the specified habitat, or like functioning habitat, and (2) the land shall be managed by the agency for conservation of natural resources in perpetuity.

(c) Resource Management Plan. If Option 2 is chosen, to provide for the long-term management of the proposed Open Space Preserve, an RMP shall be prepared and shall be implemented. The final RMP shall be completed to the satisfaction of the Director of PDS, as follows: (1) the RMP shall be prepared and approved pursuant to the most current version of the County of San Diego

Report Format and Content Requirements: Biological Resources; (2) the habitat land to be managed shall be owned by a land conservancy or equivalent; (3) open space easements shall be dedicated or deed restrictions recorded in perpetuity; (4) a resource manager shall be selected and approved, with evidence provided demonstrating acceptance of this responsibility; (5) the RMP funding mechanism shall be identified and adequate to fund annual costs for implementation; and (6) a contract between the Boulder Brush Developer and County of San Diego shall be executed for the implementation of the RMP, and funding will be established with the County of San Diego as the third-party beneficiary.

M-BI-6 **Nesting Bird Survey**. To avoid any direct impacts to raptors and/or any migratory birds protected under the Migratory Bird Treaty Act and California Fish and Game Code, removal of habitat that supports active nests on the proposed area of disturbance shall occur outside of the nesting season for these species (January 15 through September 1, annually). If, however, removal of habitat on the proposed area of disturbance must occur during the nesting season, the Boulder Brush Developer or its designee shall retain a biologist approved by the County of San Diego to conduct a preconstruction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The preconstruction survey must be conducted within 72 hours prior to the start of construction that would impact any vegetation that could support nesting birds.

If nesting birds are detected by the biologist, buffers shall be established per the biologist's best professional judgment. The buffer shall be flagged in the field and mapped on the construction plans. The non-construction buffer zones shall be avoided until the nesting cycle is complete. Exceptions may be made if the biologist determines that work within the buffer would not affect the nesting cycle.

M-BI-7 **Revegetation of Temporarily Impacted Areas.** Disturbed areas that are not required to be clear for operations and maintenance activities (i.e., temporarily disturbed areas) shall be revegetated or stabilized using soil binders within 90 days of construction completion. The Boulder Brush Facilities would result in temporary impacts to sensitive upland and jurisdictional aquatic resources (ephemeral channels). Temporary impacts shall be revegetated to provide erosion control, slope stabilization, or other necessary function. Revegetation areas may incorporate salvaged materials, such as seed collection and translocation of plant materials, as determined to be appropriate. The Project Biologist shall review the plant materials prior to grading and determine if salvage is warranted. Ephemeral channels will be restored to pre-construction conditions, as feasible.

M-BI-8 **APLIC Standards.** Provide evidence to the Director of PDS that all transmission poles and lines are designed to conform to Avian Power Line Interaction Committee (APLIC) standards. The Boulder Brush Facilities shall implement recommendations by the APLIC (2006, 2012), which will protect raptors and other birds from electrocution. These measures are sufficient to protect even the largest birds that may perch or roost on transmission lines or poles from electrocution. Specifically these measures will include guidance on proper pole and crossmember dimensions, phasing, and insulator design and dimensions to preclude wire to wire contact with a goal of providing 150 centimeters (approximately 60 inches) of separation between energized conductors and energized hardware and ground wire.

M-BI-9 **Removal of Carcasses.** All large animal carcasses (e.g., any domestic livestock, feral animal, or big game) incidentally found within or adjacent to the development footprint during operation and maintenance activities shall be removed from the Boulder Brush Corridor to prevent attraction of carrion-consuming birds of prey.

M-BI-10 **Fugitive Dust Control**. The Boulder Brush Developer shall implement the fugitive dust control measures outlined in mitigation measures M-AQ-2 and M-AQ-3 (Fugitive Dust Control) of the Final EIR.

M-BI-11 **Erosion and Runoff Control.** During construction, material stockpiles shall be placed such that they cause minimal interference with on-site drainage patterns. This shall protect sensitive vegetation from being inundated with sediment-laden runoff.

Dewatering shall be conducted in accordance with standard regulations of the Regional Water Quality Control Board (RWQCB). A construction National Pollutant Discharge Elimination System permit, issued by RWQCB to discharge water from dewatering activities, shall be required prior to start of construction. This shall minimize erosion, siltation, and pollution within sensitive communities.

Design of drainage facilities shall incorporate long-term control of pollutants and stormwater flow to minimize pollution and hydrologic changes. An Urban Runoff Plan and operational best management practices shall be approved by the San Diego County Department of Planning & Development Services prior to construction.

M-BI-12 **Regulation of Chemical Pollutants.** Weed control treatments shall include legally permitted chemical, manual, and mechanical methods applied with the authorization of the County of San Diego agriculture commissioner. The application of herbicides shall be in compliance with all state and federal laws and regulations under the prescription of a Pest Control Adviser and implemented by a licensed applicator. Where manual and/or mechanical

methods are used, disposal of the plant debris shall follow the regulations set by the County agriculture commissioner.

In addition, use of rodenticides shall not be allowed.

M-BI-13 **Prevention of Invasive Plant Species.** A County of San Diego –approved plant list shall be used for the revegetation areas. A hydroseed mix that incorporates native species and is appropriate to the area, shall be used for slope stabilization in transitional areas. No invasive plant species as included on the most recent version of the California Invasive Plant Council's California Invasive Plant Inventory for the Project region shall be included in the seed mix, and the plant palette shall be composed of native species that do not require high irrigation rates. The hydroseed mix and a map of the seeded areas shall be submitted and approved by the County of San Diego prior to re-seeding.

M-BI-14 **Fire Protection**. To minimize impacts to biological resources from fire hazards, the Boulder Brush Facilities Fire Protection Plan shall be implemented in conjunction with development of the Boulder Brush Facilities.

M-BI-15 **Access Control**. To minimize unauthorized access to the Boulder Brush Facilities, all access roads adjacent to a public road shall be gated and locked to the extent permitted by adjacent land owners, easements, and County of San Diego requirements.

M-BI-16 **Federal and State Agency Permits.** Prior to impacts occurring to U.S. Army Corps of Engineers (ACOE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW) (collectively, the Resource Agencies) jurisdictional aquatic resources, the Boulder Brush Developer or its designee shall obtain the following permits: ACOE 404 permit or authorization under a Nationwide Permit, RWQCB 401 Water Quality Certification, and California Fish and Game Code 1602 Streambed Alteration Agreement. To mitigate for impacts to jurisdictional waters, the Developer may purchase mitigation bank credits, including establishment, re-establishment, enhancement, or rehabilitation. Alternatively, a suitable mitigation site shall be selected and approved by the Resource Agencies during the permitting process. Either of these mitigation options would result in no net loss of jurisdictional aquatic resources. A functional assessment, such as the California Rapid Assessment Method (CRAM), of the jurisdictional areas proposed to be impacted and preserved at the mitigation site shall be conducted. The purpose of the functional assessment is to evaluate the existing functions and services within the jurisdictional drainages and ensure that the functions and values of the jurisdictional

areas lost are replaced at the mitigation site. The precise mitigation ratio shall depend on the functions and values of the mitigation site and any restoration activities that may be conducted to further increase the functions and values of the mitigation site.

Impacts to Resource Protection Ordinance wetlands (with the exception of the intermittent channel) shall be mitigated at a minimum of ratio 3:1, with a minimum of 1:1 impact-to-creation ratio; restoration/enhancement of existing wetlands may be used to make up the remaining requirements. This would result in no net loss of County RPO wetlands.

If mitigation is proposed to occur within the Boulder Brush Corridor or within the off-site mitigation area, then a Wetlands Mitigation and Monitoring Plan shall be prepared. Prior to issuance of land development permits, including clearing, grubbing, and grading permits for activities that would impact jurisdictional aquatic resources, the Boulder Brush Developer shall prepare a Wetlands Mitigation and Monitoring Plan to the satisfaction of the Director of Planning & Development Services (or his/her designee). The Conceptual Wetlands Mitigation and Monitoring Plan shall, at a minimum, prescribe site preparation, planting, irrigation, and a 5-year maintenance and monitoring program with qualitative and quantitative evaluation of the revegetation effort and specific performance criteria to determine successful revegetation.

Campo Wind Facilities

The following mitigation measures **M-BI-A** through **M-BI-D** are the recommended mitigation measures in the EIS for the Campo Wind Facilities, and are subject to the BIA's Record of Decision.

M-BI-A **Implementation of USFWS-Issued Terms and Conditions.** All terms and conditions developed as part of the Section 7 consultation process with the U.S. Fish and Wildlife Service (USFWS) and provided in the Project's Biological Opinion shall be implemented. Terms and conditions shall apply to any ESA-listed species that may be impacted by the Project. Ratios for habitat-based mitigation (if any) shall be determined during the Section 7 consultation process. The mitigation shall focus on habitat preservation and creation for long-term conservation of metapopulation dynamics. Per coordination with USFWS, seasonal avoidance of mapped suitable Quino checkerspot butterfly habitat during Project construction would not be required. Terms and conditions outlined in the Project's Biological Opinion shall take precedence over the measure outlined herein. The measure described below would be subject to enforcement by the Campo Environmental Protection Agency on the Reservation, and by the County of San Diego for the

Boulder Brush Facilities. The Project's Biological Opinion will be issued to the BIA and the BIA will be responsible for implementing the terms and conditions of the Biological Opinion.

(a) Construction Flagging and Signage. Construction flagging and/or signage will be installed when construction of the Project occurs immediately adjacent to mapped occupied Quino checkerspot butterfly habitat (i.e., within a 200-meter radius around host plant concentrations or Quino checkerspot butterfly detections that are located within 1 kilometer of a mapped Quino checkerspot butterfly location) to prevent unnecessary intrusion into occupied Quino checkerspot butterfly habitat. Signage shall be installed where construction activity high-use areas border suitable Quino checkerspot butterfly habitat to prevent intrusion into sensitive habitat and remind personnel of restrictions regarding activities within these areas.

M-BI-B Avian-Specific Avoidance, Minimization, and Mitigation Measures.

(a) Vegetation Clearing Seasonal Avoidance/Nest Clearance Surveys. Vegetation clearing will take place outside of the general avian breeding season (February 15 through August 15) when practicable. If not practicable to conduct vegetation clearing outside the general avian breeding season, it is recommended that a Project biologist with a minimum of 3 years' experience conducting migratory bird surveys conduct a nest-clearance survey within 500 feet (152 meters) of a vegetation clearance area no more than 5 days prior to vegetation clearing. Vegetation clearing crews shall coordinate with the Project biologist prior to the start of construction to verify that the area has been adequately surveyed. If no active nests are discovered, vegetation clearing may proceed. If an active nest is discovered, the nest and an avoidance buffer (at least 300 feet (91 meters) for passerines and at least 500 feet (152 meters) for raptors) shall be flagged or otherwise marked for avoidance. The Project biologist shall monitor any active nest discovered on at least a weekly basis to track the status of each nest. Vegetation clearing shall not take place within the avoidance buffer until nesting is complete (i.e., nestlings have fledged or nest has failed), as determined by the Project biologist. If clearing in a given area ceases for five or more consecutive days during the nesting season, repeat nest clearance surveys will be conducted to verify that new nesting locations have not been established.

(b) Construction Seasonal Avoidance/Pre-Construction Surveys. Construction (non-vegetation-clearing activities; see MM-BIO-3(a) for vegetation clearing

restrictions) that cannot occur outside the general avian breeding season (February 15 through August 15) shall proceed under the following recommended protocols. If nest clearance surveys (see MM-BIO-3[a]) have not been conducted within 5 days of the start of construction, the Project biologist shall conduct a pre-construction nest survey within 500 feet (152 meters) of the construction area no more than 5 days prior to the start of construction in a given area of the construction footprint. Construction crews shall coordinate with the Project biologist prior to the start of construction to verify that the area has been adequately surveyed. If no active nests are discovered, construction may proceed. If an active nest is discovered, the nest and an avoidance buffer (at least 300 feet [91 meters] for passerines and at least 500 feet [152 meters] for raptors) shall be flagged or otherwise marked prior to the start of construction. The Project biologist shall coordinate with construction crews to determine the types of construction activities that may take place within the avoidance buffer. The following shall be taken into consideration when determining whether a construction activity may take place within the avoidance buffer: (1) location of nest; (2) status of nesting; (3) species-specific sensitivity to potential disturbances associated with an activity; (4) type, duration, and timing of construction activity; (5) existing level of disturbances; and (6) influence of other environmental factors on potential disturbances. The Project biologist shall be responsible for monitoring any active nests discovered on at least a weekly basis to track the status of each nest. Should the Project biologist determine that construction activities may disturb the nesting activity, then construction activities shall cease within the avoidance buffer until nesting is complete. If construction in a given area ceases for 5 or more consecutive days during the nesting season, repeat pre-construction surveys shall be required to verify that new nesting locations have not been established.

(c) Bird and Bat Conservation Strategy. The Developer shall prepare a Bird and Bat Conservation Strategy (BBCS). The BBCS shall be prepared by a qualified biologist and shall include methods and results of avian and bat surveys conducted in 2017, 2018, and 2019 at the Project Site; a risk assessment associated with potential collisions/barotrauma with Project turbines and meteorological towers and electrocution associated with overhead transmission lines; recommended avoidance, minimization, and mitigation measures to address this risk; methods and protocols associated with post-construction monitoring; and adaptive management actions that can be taken based on

monitoring results. The BBCS shall be submitted to USFWS for review. The BBCS may include the following:

- **Implementation of a Post-Construction Monitoring Program.** A Post-Construction Monitoring Program shall provide a means of methodically recording and collecting information on dead or injured birds and bats within the Project Site by professional biologists. This monitoring program will include standardized survey methods, observer trials, and carcass removal trials to assist in determining accurate collision estimates for the Project. These rates will allow for comparison to other projects and assist in determining what, if any, adaptive management activities should be implemented. This monitoring program will occur for a minimum of 2 years and be initiated after completion of Project construction.
- **Implementation of a Worker Response Reporting System (WRRS).** The WRRS shall provide a means of recording and collecting information on incidental discoveries of dead or injured birds and bats within the Project Site by site personnel. The WRRS shall be used by site personnel who discover bird and bat carcasses during construction and routine maintenance activities. Site personnel shall be provided a set of standardized instructions to follow in response to wildlife incidents in the Project Area.
- **Notification and Implementation Activities.** In accordance with the WRRS, during construction, site personnel shall notify the Project biologist to collect the following data on the incidentally detected avian and bat wildlife: species, date, time, location (e.g., nearest Project structure), and how the animal died, if known. Results shall be reported to the Tribe and the Developer on a quarterly basis unless federally listed species are involved. During operations, a procedure shall be developed for site personnel to collect the same data, take photographs, and notify the Project's environmental manager, who shall then notify the Tribe and the Developer unless listed species are involved, in which case USFWS shall be notified within 48 hours. In the event of an injury to federally protected species, the USFWS shall be contacted immediately for instruction on how to handle the situation. Workers shall be trained on the WRRS during Worker Environmental Awareness Program training. The WRRS shall be used for the life of the Project. To accommodate these requirements, a Project biologist shall be on retainer throughout the construction period, and one shall be available

during the life of the Project to assist in avian and bat identifications, data collection, determination of cause of death or injury, and implementing the WRRS.

(d) Removal of Carcasses. All large animal carcasses (e.g., any domestic livestock, feral animal, or big game) incidentally found within the Project Site during operation and maintenance activities shall be removed from the site to prevent attraction of carrion-consuming birds of prey.

(e) APLIC Standards. The Project shall implement 2006 and 2012 recommendations by the Avian Power Line Interaction Committee (APLIC) to protect raptors and other birds from electrocution. When properly designed and implemented, these measures can be sufficient to protect even the largest birds that may perch or roost on transmission lines or towers from electrocution. Specifically, these measures will include design specifications regarding proper pole and crossmember dimensions, phasing, and insulator design and dimensions to preclude wire-to-wire contact with a goal of providing appropriate separation between energized conductors and energized hardware and ground wire. In addition, bird diverters or other means to make lines more visible to birds will be installed where appropriate to help avoid collisions.

M-BI-C General Avoidance and Minimization Measures.

(a) Project Biologist(s). A Project biologist(s) approved by the U.S. Fish and Wildlife Service (USFWS) and the Campo Band of Diegueño Mission Indians (Tribe) shall be designated by the Developer. The Campo Environmental Protection Agency is recommended to oversee the duties of the Project biologist for all work conducted on the Reservation. The Developer shall submit the names, documented experience, any relevant permit numbers, and resumes for the Project biologist(s) to USFWS and the Tribe for approval prior to initiation of construction. The Project biologist(s) shall be responsible for the following:

- Providing training to all construction workers (may take the form of any documentable training platform).
- Reviewing and/or designating the construction area in the field with the construction contractor in accordance with the final grading plan prior to clearing, grubbing, or grading.
- Conducting a field review of the staking to be set by the professional surveyor, designating the limits of construction activity prior to clearing, grubbing, or grading.

- Flushing wildlife species (i.e., reptiles, mammals, avian, or other mobile species) from occupied habitat areas immediately prior to (i.e., within 2 hours) brush-clearing and earthmoving activities. This does not include disturbance of nesting birds (see M-BI-B) or "flushing" of federally listed species (e.g., Quino checkerspot butterfly [see M-BI-A]).
- Regularly monitoring construction activities to verify that construction is proceeding in compliance with all permit requirements specific to biological resources.
- Overseeing the construction site so that cover and/or escape routes for wildlife from excavated areas are provided on a daily basis. All steep trenches, holes, and excavations during construction shall be covered at night with backfill, plywood, metal plates, or other means, and the edges covered with soils and plastic sheeting such that small wildlife cannot access them, and/or excavations shall provide an earthen ramp or boards to allow for a wildlife escape route at the ends and every 30 feet.
- Maintaining communication with the appropriate personnel (construction Project manager, resident engineer) so that issues relating to biological resources are appropriately and lawfully managed.
- Verifying that grading plans include a stormwater pollution prevention plan.
- Reporting any noncompliance issues to the Bureau of Indian Affairs, resident engineer, and the Tribe.

(b) Environmental Training Program. A worker environmental awareness program shall be developed and implemented prior to the start of construction. The Project biologist(s) shall use this program to conduct environmental training for construction personnel. All construction site personnel shall be required to attend the environmental training in conjunction with hazard and safety training prior to working on site.

(c) SWPPP. The stormwater pollution prevention plan (SWPPP) or equivalent shall include, at a minimum, the best management practices listed below. The combined implementation of these requirements shall protect adjacent habitats and special-status species during construction to the maximum extent practicable. At a minimum, the following measures and/or restrictions shall be incorporated into the SWPPP and noted on construction plans, where appropriate, to avoid impacts to special-status species, special-status vegetation communities, and/or jurisdictional waters during construction. The measures described in the SWPPP would be subject to enforcement by the Campo

Environmental Protection Agency on the Reservation, and the County of San Diego for the Boulder Brush Facilities.

The Project biologist(s) shall verify the implementation of the following design requirements:

- No planting or seeding of invasive plant species (per the most recent version of the California Invasive Plant Council's California Invasive Plant Inventory for the Project region) shall be permitted.
- Construction activity shall not be permitted in jurisdictional waters of the United States except as authorized by applicable law and permit(s), including permits and authorizations approved by the U.S. Army Corps of Engineers.
- Silt settling basins installed during the construction process shall be located away from areas of ponded or flowing water to prevent discolored, silt-bearing water from reaching areas of ponded or flowing water during normal flow regimes.
- Temporary structures, staging, and storage areas for construction equipment and/or materials shall not be located in jurisdictional waters, including wetlands and riparian areas.
- Any equipment or vehicles driven and/or operated within jurisdictional waters of the United States shall be checked and maintained by the operator daily to prevent leaks of oil or other petroleum products that could be deleterious to aquatic life if introduced to the watercourse.
- No stationary equipment, such as motors, pumps, generators, and welders, or fuel storage tanks shall be located within 200 feet of jurisdictional waters of the United States.
- No debris, bark, slash sawdust, rubbish, cement, concrete, oil, or petroleum products shall be stored where it may be washed by rainfall or runoff into jurisdictional waters of the United States.
- When construction operations are completed, any excess materials or debris shall be removed from the work area.
- No equipment maintenance shall be performed within 200 feet of jurisdictional waters of the United States where petroleum products or other pollutants from the equipment may enter these areas.

- Fully covered trash receptacles that are animal-proof and weather-proof shall be installed and used by the construction contractor(s) to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Littering shall be prohibited and trash shall be removed from construction areas daily. All food-related trash and garbage shall be removed from the construction sites on a daily basis.

(d) Fugitive Dust Control. The Developer or its designee shall implement the fugitive dust control measures outlined in project design features PDF-AQ-2 and PDF-AQ-3 (Fugitive Dust Control) of the Final EIR.

(e) Revegetation. Disturbed areas that are not required to be clear for operations and maintenance activities (i.e., temporarily disturbed areas) shall be revegetated or stabilized using soil binders within 90 days of construction completion. If soil binders are used they shall be as efficient, or more efficient, for fugitive dust control than California Air Resources Board-approved soil stabilizers. Soil would be revegetated with native plant species found within adjacent habitats. Locally available seed will be used, and that seed from species that are unavailable for collection would not be incorporated into the final seed palette. Revegetation of temporarily disturbed areas shall provide a minimum of 40% cover of plant species native to adjacent habitats within a 2-year time frame. If 40% cover of native species is not achieved within 2 years, adaptive management measures (e.g., supplemental seeding, erosion control, pest control) will be pursued until 40% cover of native species is achieved.

Prior to decommissioning of Campo Wind Facilities, a decommissioning plan would be prepared and implemented. The decommissioning plan shall include revegetation of the previously disturbed areas. Soil would be revegetated with native plant species found within adjacent habitats. Locally available seed would be used, and seed from species that are unavailable for collection would not be incorporated into the final seed palette. Revegetation of disturbed areas shall provide a minimum of 40% cover of plant species native to adjacent habitats within 2 years of construction completion. If 40% cover of native species is not achieved within 2 years, adaptive management measures will be pursued until 40% cover of native species is achieved.

(f) Erosion and Runoff Control. During construction, material stockpiles shall be placed such that they cause minimal interference with on-site drainage patterns. This will protect jurisdictional resources from being inundated with sediment-laden runoff. Design of drainage facilities shall incorporate long-

term control of pollutants and stormwater flow to minimize pollution and hydrologic changes.

(g) Weed Management. A weed management plan shall be developed and approved by the Tribe prior to commencement of construction activities on the Reservation. The plan shall include the following:

- Weed inventory and risk assessment;
- Identification of problem areas and necessary preventive measures;
- Annual surveys within the restoration areas to document weed patches for 2 years post construction;
- Success standards, such as no more than a 10% increase in weed species in restoration areas;
- Adaptive management measures; and
- Reporting.

All herbicide application shall be in compliance with applicable state and federal laws and regulations under the prescription of a Pest Control Adviser and implemented by a licensed applicator.

(h) Fire Protection. To minimize the potential exposure of the Project to fire hazards, a Boulder Brush Fire Protection Plan (FPP) shall be prepared and a Fire Protection Plan for the Campo Wind Facilities shall be prepared to the satisfaction of the CRFPD. The FPPs shall be implemented in conjunction with development of the Project.

M-BI-D **Jurisdictional Waters and Wetlands Compensation.** Temporary and permanent impacts to jurisdictional waters and wetlands shall be mitigated per the Project's federal Clean Water Act permit conditions. Temporary impacts shall be restored in place to pre-activity functions; permanent impacts shall be mitigated through a U.S. Army Corps of Engineers-approved mitigation bank and/or in-lieu fee program. Either of these mitigation options would result in no net loss of jurisdictional aquatic resources. A functional assessment, such as the California Rapid Assessment Method, of the jurisdictional areas proposed to be impacted and preserved at the mitigation site shall be conducted. The purpose of the functional assessment is to evaluate the existing functions and services within the jurisdictional drainages and ensure that the functions and values of the jurisdictional areas lost are replaced at the mitigation site. The precise mitigation ratio shall

depend on the functions and values of the mitigation site and any restoration activities that may be conducted to further increase the functions and values of the mitigation site. Refer to MM-BIO-C for success criteria for revegetation areas.

2.3.7 Conclusion

This section provides a synopsis of the conclusion reached in each of the impact analyses, and the level of impact that would occur after mitigation measures are implemented. A summary is also provided in Table 2.3-8, Summary of Impacts and Mitigation.

As discussed above in Section 2.3.6, Mitigation Measures, the County cannot guarantee that the BIA will require the implementation of recommended mitigation measures on tribal land. However, the BIA has prepared an EIS for the Project with these same recommended mitigation measures as identified in Section 2.3.6. As the mitigation measures in the EIS will be a requirement of the BIA approval and record of decision, measures in the EIS would be guaranteed to be implemented. As mitigation beyond those measures identified in the EIS cannot be guaranteed to be completed, no mitigation is assumed in the analysis and the impact would remain significant and unmitigated. Refer to the analysis below.

Candidate, Sensitive, or Special-Status Species

Project

There are no federally or state-listed plants within the Boulder Brush Corridor, Campo Corridor, or limits of grading. A portion of the Boulder Brush Facilities would result in the loss of sensitive plant species (County List A and County List B). The Project would result in permanent and temporary direct impacts to habitat for special-status (County Group 1 species or CDFW SSC) wildlife species. Project impacts to special-status plant and wildlife species would be reduced to **below a level of significance with mitigation**.

Boulder Brush Facilities

Impacts to potentially occupied Quino checkerspot butterfly habitat (**Impact BI-1**) would be mitigated through implementation of mitigation measure **M-BI-1**.The Boulder Brush Facilities would result in potential significant impacts to County sensitive plant species (**Impact BI-2**) that would be mitigated via **M-BI-5** (habitat preservation). The Boulder Brush Facilities would also have potential County sensitive plant species impacts related to construction outside of the impact area (**Impact BI-3**), which would be mitigated via **M-BI-2** (biological monitoring), **M-BI-3** (temporary construction flagging/fencing), and **M-BI-4** (SWPPP). Implementation of these measures would ensure impacts to special-status plant species outside of the impact area would be avoided during construction, and special-status plant species impacts within the construction area would be replaced and conserved.

Thus, direct impacts to special status plant species on Boulder Brush Corridor would be reduced to **below a level of significance with mitigation**.

Potentially significant temporary direct impacts (**Impact BI-3**) and permanent direct impacts (**Impact BI-4**) to habitat for special-status wildlife species would occur as a result of the Boulder Brush Corridor. In addition, there is potential for significant impacts to special-status wildlife if construction activities occur outside the designated construction activities (**Impact BI-6**). These potential impacts would be reduced with the implementation of **M-BI-2** (biological monitoring), **M-BI-3** (temporary construction flagging/fencing), **M-BI-4** (SWPPP), **M-BI-5** (habitat preservation), **M-BI-6** (nesting bird surveys), and **M-BI-7** (revegetation of temporarily impacted areas). Implementation of these measures would ensure direct impacts to sensitive wildlife habitat outside of the impact area would be avoided during construction. Thus, direct impacts to sensitive wildlife species habitat within the Boulder Brush Corridor would be reduced to **below a level of significance with mitigation**.

The Off-Reservation gen-tie line would result in a potentially significant electrocution impact to sensitive avian species including migratory birds (**Impact BI-7**). This potential impact would be reduced to below a level of significance by complying with the Avian Power Line Interaction Committee Standards (**M-BI-8**). These measures reduce the potential for avian usage of the power lines, and reduce potential avian electrocution risks.

Permanent impacts to raptor foraging (**Impact BI-8**) would be mitigated via **M-BI-5** (habitat preservation), as it would replace the loss of raptor foraging habitat and conserve it in perpetuity.

Temporary indirect impacts to special-status plants (**Impact BI-9**), and permanent indirect impacts to special-status plants (**Impact BI-10**) would be mitigated via **M-BI-2** (biological monitoring), **M-BI-3** (temporary construction flagging/fencing), **M-BI-4** (SWPPP), **M-BI-10** (fugitive dust control), **M-BI-11** (erosion and runoff control), **M-BI-12** (regulation of chemical pollutants, and **M-BI-13** (prevention of invasive plant species). These measures would ensure avoidance of indirect impacts outside of the construction area, including indirect hydrology, water quality, dust, chemical pollution, and invasive species impacts.

Temporary indirect impacts to sensitive wildlife (**Impact BI-11**), and permanent indirect impacts to sensitive wildlife (**Impact BI-12**) would be mitigated via **M-BI-2** (biological monitoring), **M-BI-3** (temporary construction flagging/fencing), **M-BI-4** (SWPPP), **M-BI-6** (nesting bird survey), **M-BI-7** (revegetation of temporarily impacted areas), **M-BI-10** (fugitive dust control), **M-BI-11** (erosion and runoff control), **M-BI-12** (regulation of chemical pollutants), **M-BI-13** (prevention of invasive species), **M-BI-14** (fire protection), and **M-BI-15** (access control). These measures would ensure avoidance of impacts outside of the construction area, including indirect hydrology, nesting bird, water quality, dust, chemical pollution, invasive species, and change in fire regimen impacts.

Nesting birds (**Impact BI-13**) impacts would be mitigated via **M-BI-6** (nesting bird surveys). Nesting bird surveys would ensure avoidance of active nests in the event that construction occurs during the breeding season.

Campo Wind Facilities

Potential impacts to Quino checkerspot butterfly habitat (**Impact BI-A**) would be mitigated via EIS-recommended mitigation measure **M-BI-A** (Implementation of USFWS-Issued Terms and Conditions), as it would ensure lost habitat resulting from the Campo Wind Facilities is replaced.

The Campo Wind Facilities would result in a direct loss of County List A and B special-status plants during construction (**Impact BI-B**). As the County does not have legal authority to require mitigation on Reservation land and no mitigation for the loss of special-status plants is proposed for Campo Wind Facilities impacts within the Campo Corridor (see EIS), this impact would **remain significant**.

The Campo Wind Facilities would also have potential County special-status plant species impacts related to construction outside of the impact area (**Impact BI-C**), which would be mitigated via **M-BI-C (**General Avoidance and Minimization Measures). Implementation of these EIS-recommended measures would ensure impacts to special-status plant species outside of the impact area would be avoided during construction. Thus, direct impacts to special status plant species within the Campo Corridor would be reduced to **below a level of significance with mitigation.**

Potentially significant direct impacts (**Impact BI-D**) to habitat for special-status wildlife species would occur as a result of the loss of sensitive habitat within the Campo Corridor. As the County does not have legal authority to require mitigation on Reservation land and no mitigation for the loss of habitat for sensitive wildlife is proposed for Campo Wind Facilities impacts within the Campo Corridor (see EIS), this impact would **remain significant**.

Project turbines within the Campo Corridor would result in a potentially significant collision impact to sensitive avian species including migratory birds (**Impact BI-E**). This potential impact would be reduced to below a level of significance by EIS-recommended mitigation measures **M-BI-B** (Avian-Specific Avoidance, Minimization, and Mitigation Measures).

The On-Reservation gen-tie line would result in a potentially significant electrocution impact to sensitive avian species including migratory birds (**Impact BI-F**). This potential impact would be reduced to below a level of significance by complying with the Avian Power Line Interaction Committee Standards (EIS-recommended mitigation measure **M-BI-B** [Avian-Specific Avoidance, Minimization, and Mitigation Measures]).

A loss of raptor foraging habitat would also occur as a result of Campo Wind Facilities; however this would be a **less-than-significant impact** (**Impact BI-G**) because less than 5% of the raptor foraging habitat on the Reservation, as well as the entire Project Site, would be impacted.

Temporary indirect impacts to special-status plants (**Impact BI-H**), and permanent indirect impacts to special-status plants (**Impact BI-I**) would be mitigated via EIS-recommended mitigation measures **M-BI-C (**General Avoidance and Minimization Measures). These measures would ensure avoidance of indirect impacts outside of the construction area, including indirect hydrology, water quality, dust, chemical pollution, and invasive species impacts.

Temporary indirect impacts to sensitive wildlife (**Impact BI-J**) and permanent indirect impacts to sensitive wildlife (**Impact BI-K**) would be mitigated via EIS-recommended mitigation measures **M-BI-C (**General Avoidance and Minimization Measures). These measures would ensure avoidance of impacts outside of the construction area, including indirect hydrology, nesting bird, water quality, dust, chemical pollution, invasive species, and change in fire regimen impacts.

Nesting raptor (**Impact BI-L**) impacts would remain significant. These potential impacts would be reduced to below a level of significance with the implementation of EIS-recommended mitigation measures **M-BI-B** (Avian-Specific Avoidance, Minimization, and Mitigation Measures).

Riparian Habitat or Sensitive Natural Community

Project

Permanent and temporary direct impacts to sensitive riparian and upland vegetation communities within the development footprints of the Project would result from Project construction activities. Impacts to vegetation communities or land covers within the Boulder Brush Corridor would be mitigated through off-site habitat conservation. Impacts to vegetation communities or land covers within the Campo Corridor are not subject to the mitigation requirements in the County guidelines. Permanent direct impacts would be significant and unavoidable.

Boulder Brush Facilities

The loss of County sensitive habitat on Boulder Brush Corridor (**Impact BI-14**) would be mitigated to below a level of significance by **M-BI-5** (habitat preservation), **M-BI-7** (revegetation of temporarily impacted areas), and **M-BI-16** (federal and state agency permits).

The potential for impacts to sensitive habitats outside of the Boulder Brush Facilities footprint (**Impact BI-15**) would be mitigated to below a level of significance by **M-BI-2** (biological monitoring), **M-BI-3** (temporary construction flagging/fencing), **M-BI-4** (SWPPP), and **M-BI-16** (federal and state agency permits).

Direct impacts to jurisdictional waters on Boulder Brush Corridor (**Impact BI-16**) would be mitigated to below a level of significance by **M-BI-5** (habitat preservation) and **M-BI-16** (federal and state agency permits). **M-BI-2** (biological monitoring) and **M-BI-3** (temporary construction flagging/fencing) would be implemented to avoid significant impacts to jurisdictional habitat potential impacts from activities extending outside the impact area (**Impact BI-17**).

In addition, significant temporary indirect (**Impact BI-18**) impacts to jurisdictional habitats on Boulder Brush Corridor would be avoided by implementation of **M-BI-2** (biological monitoring), **M-BI-3** (temporary construction flagging/fencing), **M-BI-4** (SWPPP), **M-BI-11** (erosion and runoff control), **M-BI-12** (regulation of chemical pollutants), and **M-BI-16** (federal and state agency permits). Indirect permanent impacts to jurisdictional habitats (**Impact BI-19**) would be avoided via **M-BI-4** (SWPPP), **M-BI-11** (erosion and runoff control), **M-BI-12** (regulation of chemical pollutants), **M-BI-13** (prevention of invasive plant species), **M-BI-14** (fire protection), and **M-BI-16** (federal and state agency permits).

Temporary indirect impacts to County sensitive vegetation communities (**Impact BI-20)** would be mitigated to below a level of significance through **M-BI-2** (biological monitoring), **M-BI-3** (temporary construction flagging/fencing), **M-BI-4** (SWPPP), **M-BI-7** (revegetation of temporarily impacted areas), **M-BI-10** (fugitive dust control), **M-BI-11** (erosion and runoff control), and **M-BI-12** (regulation of chemical pollutants). Permanent indirect impacts to County sensitive habitats (**Impact BI-21**) would be mitigated to below a level of significance through **M-BI-4** (SWPPP), **M-BI-11** (erosion and runoff control), **M-BI-12** (regulation of chemical pollutants), **M-BI-13** (prevention of invasive plant species), **M-BI-14** (fire protection), and **M-BI-16** (federal and state agency permits).

Permanent direct impacts to RPO wetland and wetland buffer on Boulder Brush Corridor (**Impact BI-22**) would be mitigated to below a level of significance by the implementation of **M-BI-2** (biological monitoring), **M-BI-3** (temporary construction flagging/fencing), **M-BI-4** (SWPPP), **M-BI-5** (habitat preservation), **M-BI-7** (revegetation of temporarily impacted areas), **M-BI-11** (erosion and runoff control), **M-BI-12** (regulation of chemical pollutants), and **M-BI-16** (federal and state agency permits).

Campo Wind Facilities

The loss of County sensitive habitat within the Campo Corridor (**Impact BI-M**) would remain significant. The County does not have legal authority to require mitigation on Reservation land.

The potential for impacts to sensitive habitats outside of the Campo Wind Facilities footprint (**Impact BI-N**) would be mitigated to below a level of significance by implementation of EIS-recommended mitigation measures **M-BI-C (**General Avoidance and Minimization Measures).

Campo Wind Facilities direct impact to jurisdictional waters within the Campo Corridor (**Impact BI-O**) would be mitigated by implementation of EIS-recommended mitigation measure **M-BI-D** (Jurisdictional Waters and Wetlands Compensation). The potential for impacts to jurisdictional waters outside of the Campo Wind Facilities footprint (**Impact BI-P**) would be mitigated to below a level of significance by **M-BI-C (**General Avoidance and Minimization Measures).

In addition, significant temporary indirect (**Impact BI-Q**) impacts to jurisdictional habitats within the Reservation Boundary would be reduced to below a level of significance by implementation of EIS-recommended mitigation measures **M-BI-C (**General Avoidance and Minimization Measures.

Permanent indirect impacts to jurisdictional waters (**Impact BI-R)** would be mitigated to below a level of significance through implementation of EIS-recommended mitigation measures **M-BI-C (**General Avoidance and Minimization Measures). Although impacts would be significant as a result of impacts to RPO wetland and wetland buffers (**Impact BI-U**), no EIS-recommended mitigation measures would be implemented because the Campo Wind Facilities On-Reservation are not subject to the County RPO.

In addition, significant temporary indirect (**Impact BI-S**) impacts to sensitive vegetation communities within the Reservation Boundary would be reduced to below a level of significance by implementation of EIS-recommended mitigation measures **M-BI-C (**General Avoidance and Minimization Measures).

Permanent indirect impacts to sensitive vegetation communities (**Impact BI-T)** would be mitigated to below a level of significance through implementation of EIS-recommended mitigation measures **M-BI-C (**General Avoidance and Minimization Measures).

The Camo Wind Facilities would not have impacts to RPO wetland and wetland buffer as land within the Reservation Boundary is not subject to RPO wetland regulations.

Jurisdictional Wetlands and Waterways

Project

The Project would result in potential significant jurisdictional impacts within the Boulder Brush Corridor (**Impact BI-15** through **Impact BI-19**) and within the Campo Corridor (**Impact BI-O** through **Impact BI-R**). These Project impacts would be fully mitigated as described in the section above.

Boulder Brush Facilities

The Boulder Brush Facilities would result in potentially significant jurisdictional impacts within the Boulder Brush Corridor (**Impact BI-15** through **Impact BI-19**), which would be fully mitigated as described in the section above.

Campo Wind Facilities

The Campo Wind Facilities would result in potentially significant jurisdictional impact within the Campo Corridor (**Impact BI-O** through **Impact BI-R**), which would be fully mitigated as described in the section above.

Wildlife Movement and Nursery Sites

Project

The Project Site is not located within a wildlife corridor, and therefore the Project would have no impacts related to wildlife corridors. However, the Project would have temporary direct impacts to a County Wildlife Core within the Boulder Brush Corridor during construction (**Impact BI-23**) and potential impacts within the Campo Corridor for avian electrocution risk (**Impact BI-W**) and collisions (**Impact BI-X**).

Boulder Brush Facilities

The Boulder Brush Facilities temporary direct impacts to a County Wildlife Core on private land during construction (**Impact BI-23**) would be avoided via **M-BI-2** (biological monitoring), **M-BI-3** (temporary construction flagging/fencing), and **M-BI-7** (revegetation of temporarily impacted areas). In addition, the Boulder Brush Facilities would affect wildlife movement on private lands due to the collision or electrocution risk to migrating birds and bat species from the Off-Reservation gen-tie line (**Impact BI-24**). This potential impact would be mitigated to below a level of significance by proposed mitigation measures **M-BI-8** (APLIC standards) and **M-BI-9** (carcass removal).

Campo Wind Facilities

Impacts to wildlife movement on the Reservation would be potentially significant due to electrocution (**Impact BI-W**) and collision (**Impact BI-X**) risk to migrating birds with the turbines, met towers and the On-Reservation gen-tie line. These potential impacts would be mitigated to below a level of significance by EIS-recommended mitigation measures **M-BI-B** (Avian-Specific Avoidance, Minimization, and Mitigation Measures). Potential temporary direct impacts to foraging and breeding habitat within the Campo Corridor would be potentially significant (**Impact BI-V**) during construction that could significantly affect the County Wildlife Core area. These potential impacts would be mitigated to below a level of significance by EIS-recommended mitigation measure **M-BI-C (**General Avoidance and Minimization Measures).

Local Policies, Ordinances, and Adopted Plans

Project

The Project would potentially directly and indirectly impact active migratory bird nesting (**Impact BI-25** and **Impact BI-Y**). The Project would potentially impact golden eagle foraging due to habitat loss (**Impact BI-26** and **Impact BI-G**).

Boulder Brush Facilities

Direct and indirect impacts to active migratory bird nesting would potentially occur within the Boulder Brush Corridor (**Impact BI-25**), which would conflict with the MBTA. The Boulder Brush Facilities would mitigate these potential impacts to below a level of significance with implementation of the following measures: **M-BI-2** (biological monitoring), **M-BI-3** (temporary construction flagging/fencing), **M-BI-4** (SWPPP), **M-BI-5** (habitat preservation), **M-BI-6** (nesting bird survey), **M-BI-7** (revegetation of temporarily impacted areas), **M-BI-10** (fugitive dust control), **M-BI-11** (erosion and runoff control), **M-BI-12** (regulation of chemical pollutants), **M-BI-13** (prevention of invasive species), **M-BI-14** (fire protection), and **M-BI-15** (access control).

The Boulder Brush Facilities would potentially impact golden eagle foraging (**Impact BI-26**) due to habitat loss. This impact would be mitigated to below a level of significance with **M-BI-5** (habitat preservation), as the foraging habitat loss would be replaced.

Campo Wind Facilities

Direct and indirect impacts to active migratory bird nesting would potentially occur within the Campo Corridor (**Impact BI-Y**), which would conflict with the MBTA. Implementation of the mitigation measures **M-BI-B** (Avian-Specific Avoidance, Minimization, and Mitigation Measures) recommended in the EIS would reduce these potential impacts to below a level of significance.

The Campo Wind Facilities would potentially impact golden eagle foraging (**Impact BI-G**) due to habitat loss. It is noted that the habitat preservation mitigation similar to **M-BI-5** would mitigate this impact to less than significant. The County does not have legal authority to require mitigation on the Reservation and raptor foraging mitigation is not proposed (see EIS). Thus, this impact would remain significant.

Cumulative Impacts

The Project cumulative impacts to sensitive plants and vegetation communities (**Impact BI-CU-1**) would be reduced via **M-BI-2** through **M-BI-5, M-BI-7,** and **M-BI-10** through **M-BI-16**. While the Campo Wind Facilities impacts would also be reduced via indirect impact avoidance measures,

no mitigation is recommended for direct impacts to sensitive plants and vegetation communities on the Reservation. Thus, this impact would remain significant.

Cumulative indirect impacts related to invasive species and dust (**Impact BI-CU-2**) would be mitigated via **M-BI-10** (fugitive dust control) and **M-BI-13** (prevention of invasive plant species) within the Boulder Brush Corridor, and via **M-BI-C (**General Avoidance and Minimization Measures) within the Campo Corridor. Thus, this cumulative impact would be reduced to below a level of significance.

Table 2.3-1
Vegetation Communities and Land Cover Types within the Campo Corridor and Boulder Brush Corridor

Vegetation Communities and Land Cover Types	Existing (Acres)			Impacted (Acres)			
	Campo Corridor	*Boulder Brush Corridor*	*Total*	*Campo Corridor*	*Boulder Brush Corridor*		*Total*
					Temporary	*Permanent*	
Riparian and Wetlands							
Emergent wetland	3.26	3.39	6.65	0.32	0.20	0	0.52
Freshwater marsh	0.01	0	0.01	0	0	0	0
Mulefat scrub	0.21	0	0.21	0.05	0	0	0.05
Southern willow scrub	0.76	0	0.76	0.18	0	0	0.18
Unvegetated stream channel	5.48	1.06	6.54	1.25	0.30	0.13	1.67
Southern coast live oak riparian forest	5.29	0	5.29	0.85	0	0	0.85
Southern arroyo willow riparian forest	0	0.88	0.88	0	0.20	0.15	0.35
Subtotal Riparian and Wetlands	*15.01*	*5.33*	*20.34*	*2.65*	0.70	*0.28*	*3.63*
Uplands							
Big sagebrush scrub	94.37	32.16	126.53	30.42	6.44	2.74	39.60
Big sagebrush scrub (disturbed)	0.30	0	0.3	0	0	0	0
Granitic chamise chaparral	1,256.92	11.49	1268.41	458.44	2.47	1.08	461.99
Granitic northern mixed chaparral	242.25	87.08	329.33	92.97	23.90	9.64	126.51
Montane buckwheat scrub	131.17	44.39	175.56	47.19	11.30	5.71	64.21
Red shank chaparral	116.78	46.04	162.82	39.51	11.49	6.92	57.92
Scrub oak chaparral	46.59	0	46.59	15.48	0	0	15.48
Semi-desert chaparral	0	42.68	42.68	0	20.73	10.39	31.12
Upper Sonoran subshrub scrub	44.50	0	44.5	10.59	0	0	10.59
Wildflower field	0	14.80	14.8	0	3.11	0.60	3.71
Non-native grassland	60.04	0	60.04	21.43	0	0	21.43
Non-native grassland broadleaf-dominated	3.71	0	3.71	0	0	0	0
Valley Sacaton grassland	0.48	0	0.48	0.22	0	0	0.22
Coast live oak woodland	69.47	19.41	88.88	21.55	4.54	0.90	26.99

Table 2.3-1
Vegetation Communities and Land Cover Types within the Campo Corridor and Boulder Brush Corridor

Vegetation Communities and Land Cover Types	Existing (Acres)			Impacted (Acres)			
	Campo Corridor	*Boulder Brush Corridor*	*Total*	*Campo Corridor*	*Boulder Brush Corridor*		
					Temporary	*Permanent*	*Total*
Open coast live oak woodland	1.41	0.54	1.95	0	0.10	0.04	0.14
Dense coast live oak woodland	1.35	0	1.35	0	0	0	0
Subtotal Uplands	*2,069.34*	*298.59*	*2,367.93*	*737.80*	84.09	38.01	*859.90*
Other Land Cover Types							
Eucalyptus woodland	0	2.31	2.31	0	0.02	0	0.02
Disturbed habitat	80.60	10.91	91.51	45.24	2.44	5.53	53.21
Developed	19.73	0.23	19.96	3.56	0.01	0.09	3.65
Subtotal Other Land Cover Types	*100.33*	*13.45*	*113.78*	*48.80*	*2.46*	*5.62*	*56.89*
Total	2,184.68	317.38	2,502.06	789.25	87.25	43.91	920.40
Oak Root Zone	—	—	—	—	5.3	2.0	7.3

Table 2.3-2
Special-Status Plant Species within the Boulder Brush Corridor

Species	Regulatory Status: Federal/State/CRPR	Approximate Number of Individuals within the Boulder Brush Corridor	Impacts to Number of Individuals
County List A			
Jacumba milk-vetch (*Astragalus douglasii* var. *perstrictus*)	None/None/CRPR 1B.2	225	111
Southern jewelflower (*Streptanthus campestris*)	None/None/CRPR 1B.3	30	20
Tecate tarplant (*Deinandra floribunda*)	None/None/CRPR 1B.2	3,029	61

Table 2.3-2
Special-Status Plant Species within the Boulder Brush Corridor

Species	Regulatory Status: Federal/State/CRPR	Approximate Number of Individuals within the Boulder Brush Corridor	Impacts to Number of Individuals
County List B			
Desert beauty (*Linanthus bellus*)	None/None/CRPR 2B.1	1,400	1,308
Sticky geraea (*Geraea viscida*)	None/None/CRPR 2B.2	673	203
County List D			
Colorado Desert larkspur (*Delphinium parishii* ssp. *subglobosum*)	None/None/CRPR 4.3	82	46

Source: Appendix D.
CRPR: California Rare Plant Rank
1B: Plants Rare, Threatened, or Endangered in California and Elsewhere
2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
4: Plants of Limited Distribution – A Watch List
Threat Rank
0.1 – Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
0.2 – Moderately threatened in California (20%–80% occurrences threatened/moderate degree and immediacy of threat)
0.3 – Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

Table 2.3-3
Group 1 and/or California Department of Fish and Wildlife Species of Special Concern Wildlife Species Present within the Boulder Brush Corridor or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal State County Group	Modeled Habitat within the Biological Cumulative Analysis Study Area	Biological Cumulative Analysis Study Area Habitat Total	Modeled Habitat within the Boulder Brush Corridor	Occurrence and Boulder Brush Facilities Habitat Total	Significance Determination
Amphibians and Reptiles						
San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*)	USFWS: None CDFW: SSC County: Group 2	• montane buckwheat scrub • big sagebrush scrub • granitic chamise chaparral • granitic northern mixed chaparral • red shank chaparral • semi-desert chaparral • southern mixed chaparral • chamise chaparral • non-native grassland • disturbed habitat • wildflower field • mulefat scrub • alluvial fan scrub • desert woodland • pine forest • sea level to 7,000 ft amsl (2,130 m amsl)	There is 435,099 acres of modeled habitat within the biological cumulative analysis study area.	• montane buckwheat scrub • big sagebrush scrub • granitic chamise chaparral • granitic northern mixed chaparral • red shank chaparral • semi-desert chaparral • chamise chaparral • disturbed habitat • wildflower field • sea level to 7,000 ft amsl (2,130 m amsl)	Observed in the east-central portion of the Boulder Brush Corridor. There is 42.5 acres of modeled habitat within the Boulder Brush Facilities development footprint.	Although there is a large amount of habitat within the region, of which 59% is in public ownership and is reasonable anticipated to remain undisturbed, impacts to suitable habitat associated with the Project would be potentially significant prior to implementation of mitigation as the Project would impact more than 5% of habitat within the Boulder Brush Corridor (Impact W-2).

Table 2.3-3
Group 1 and/or California Department of Fish and Wildlife Species of Special Concern Wildlife Species Present within the Boulder Brush Corridor or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal State County Group	Modeled Habitat within the Biological Cumulative Analysis Study Area	Biological Cumulative Analysis Study Area Habitat Total	Modeled Habitat within the Boulder Brush Corridor	Occurrence and Boulder Brush Facilities Habitat Total	Significance Determination
San Diego banded gecko (*Coleonyx variegatus abbotti*)	USFWS: None CDFW: None County: Group 1	• montane buckwheat scrub • big sagebrush scrub • granitic chamise chaparral • granitic northern mixed chaparral • red shank chaparral • semi-desert chaparral • chamise chaparral • southern mixed chaparral • mulefat scrub • alluvial fan scrub	There is 399,880 acres of modeled habitat within the biological cumulative analysis study area.	• montane buckwheat scrub • big sagebrush scrub • granitic chamise chaparral • granitic northern mixed chaparral • red shank chaparral • semi-desert chaparral • chamise chaparral	High potential to occur. There is 36.4 acres of modeled habitat within the Boulder Brush Facilities.	Although there is a large amount of habitat within the region, of which 59% is in public ownership and is reasonable anticipated to remain undisturbed, impacts to suitable habitat associated with the Project would be potentially significant prior to implementation of mitigation as the Project would impact more than 5% of habitat within the Boulder Brush Corridor (Impact W-2).
Blainville's horned lizard (*Phrynosoma blainvillii*)	USFWS: None CDFW: SSC County: Group 2	• montane buckwheat scrub • big sagebrush scrub • granitic chamise chaparral • granitic northern mixed chaparral • southern mixed chaparral • red shank chaparral • semi-desert chaparral	There is 472,398 acres of modeled habitat within the biological cumulative analysis study area.	• montane buckwheat scrub • big sagebrush scrub • granitic chamise chaparral • granitic northern mixed chaparral	Observed in four locations in the central-eastern and western, and southern-eastern and western portions of the Boulder Brush Corridor. There is	Although there is a large amount of habitat within the region, of which 58% is in public ownership and is reasonable anticipated to remain undisturbed, impacts to suitable habitat associated with

Table 2.3-3
Group 1 and/or California Department of Fish and Wildlife Species of Special Concern Wildlife Species Present within the Boulder Brush Corridor or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal State County Group	Modeled Habitat within the Biological Cumulative Analysis Study Area	Biological Cumulative Analysis Study Area Habitat Total	Modeled Habitat within the Boulder Brush Corridor	Occurrence and Boulder Brush Facilities Habitat Total	Significance Determination
		• chamise chaparral • non-native grassland • southern arroyo willow riparian forest • coast live oak woodland • desert woodland • pine forest • oak riparian forest • riparian forest • riparian scrub • alluvial fan scrub • sea level to 8,000 ft amsl (2,438 m amsl)		• red shank chaparral • semi-desert chaparral • chamise chaparral • southern arroyo willow riparian forest • coast live oak woodland • sea level to 8,000 ft amsl (2,438 m amsl)	37.5 acres of modeled habitat within the Boulder Brush Facilities.	the Project would be potentially significant prior to implementation of mitigation as the Project would impact more than 5% of habitat within the Boulder Brush Corridor (Impact W-2).
Coronado skink (*Plestiodon skiltonianus interparietalis*)	USFWS: None CDFW: SSC County: Group 2	• granitic chamise chaparral • granitic northern mixed chaparral • red shank chaparral • semi-desert chaparral • chamise chaparral • southern mixed chaparral • alluvial fan scrub • sea level to 8,300 ft amsl (2,530 m amsl)	There is 374,167 acres of modeled habitat within the biological cumulative analysis study area.	• granitic chamise chaparral • granitic northern mixed chaparral • red shank chaparral • semi-desert chaparral • chamise chaparral	High potential to occur. There is 28.0 acres of modeled habitat within the Boulder Brush Facilities.	Although there is a large amount of habitat within the region, of which 59% is in public ownership and is reasonable anticipated to remain undisturbed, impacts to suitable habitat associated with the Project would be potentially significant prior to implementation of mitigation, as the

Table 2.3-3
Group 1 and/or California Department of Fish and Wildlife Species of Special Concern Wildlife Species Present within the Boulder Brush Corridor or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal State County Group	Modeled Habitat within the Biological Cumulative Analysis Study Area	Biological Cumulative Analysis Study Area Habitat Total	Modeled Habitat within the Boulder Brush Corridor	Occurrence and Boulder Brush Facilities Habitat Total	Significance Determination
				• sea level to 8,300 ft amsl (2,530 m amsl)		Project would impact more than 5% of habitat within the Boulder Brush Corridor (Impact W-2).
Coast patch-nosed snake (*Salvadora hexalepis virgultea*)	USFWS: None CDFW: SSC County: Group 2	• montane buckwheat scrub • big sagebrush scrub • granitic chamise chaparral • granitic northern mixed chaparral • red shank chaparral • semi-desert chaparral • chamise chaparral • southern mixed chaparral • non-native grassland • disturbed habitat • wildflower • mulefat scrub • coast live oak woodland • desert woodland • pine forest • oak riparian forest • southern arroyo willow riparian forest • riparian forest • riparian scrub	There is 505,063 acres of modeled habitat within the biological cumulative analysis study area.	• montane buckwheat scrub • big sagebrush scrub • granitic chamise chaparral • granitic northern mixed chaparral • red shank chaparral • semi-desert chaparral • chamise chaparral • disturbed habitat • wildflower • coast live oak woodland • southern arroyo willow riparian forest	High potential to occur. There is 43.6 acres of modeled habitat within the Boulder Brush Facilities.	Although there is a large amount of habitat within the region, of which 57% is in public ownership and is reasonable anticipated to remain undisturbed, impacts to suitable habitat associated with the Project would be potentially significant prior to implementation of mitigation as the Project would impact more than 5% of habitat within the Boulder Brush Corridor (Impact W-2).

Table 2.3-3
Group 1 and/or California Department of Fish and Wildlife Species of Special Concern Wildlife Species Present within the Boulder Brush Corridor or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal State County Group	Modeled Habitat within the Biological Cumulative Analysis Study Area	Biological Cumulative Analysis Study Area Habitat Total	Modeled Habitat within the Boulder Brush Corridor	Occurrence and Boulder Brush Facilities Habitat Total	Significance Determination
		• alluvial fan scrub • southern willow scrub • below sea level to 7,000 ft amsl (2,130 m amsl)		• below sea level to 7,000 ft amsl (2,130 m amsl)		
Birds						
Cooper's hawk (*Accipiter cooperii*) (nesting)	USFWS: None CDFW: WL County: Group 1	Nesting • coast live oak woodland • southern arroyo willow riparian forest • eucalyptus woodland • oak riparian forest • riparian forest • pine forest • riparian scrub • mulefat scrub Foraging • montane buckwheat scrub • big sagebrush scrub • granitic chamise chaparral • granitic northern mixed chaparral • red shank chaparral • semi-desert chaparral • chamise chaparral	There is 59,756 acres of modeled nesting habitat and 448,719 acres of modeled foraging habitat within the biological cumulative analysis study area.	Nesting • coast live oak woodland • southern arroyo willow riparian forest Foraging • montane buckwheat scrub • big sagebrush scrub • granitic chamise chaparral • granitic northern mixed chaparral • red shank chaparral • semi-desert chaparral	Observed within the northern and southern portions of the Boulder Brush Corridor. There is 1.1 acres of modeled nesting habitat and 37.5 acres of modeled foraging habitat within the Boulder Brush Facilities.	Although there is a large amount of habitat within the region, of which 57% of foraging and 51% of nesting is in public ownership and is reasonable anticipated to remain undisturbed, impacts to suitable habitat associated with the Project would be potentially significant prior to implementation of mitigation as the Project would impact more than 5% of habitat within the Boulder Brush Corridor (Impact W-2).

Table 2.3-3
Group 1 and/or California Department of Fish and Wildlife Species of Special Concern Wildlife Species Present within the Boulder Brush Corridor or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal State County Group	Modeled Habitat within the Biological Cumulative Analysis Study Area	Biological Cumulative Analysis Study Area Habitat Total	Modeled Habitat within the Boulder Brush Corridor	Occurrence and Boulder Brush Facilities Habitat Total	Significance Determination
		• southern mixed chaparral • non-native grassland • southern arroyo willow riparian forest • coast live oak woodland • eucalyptus woodland • oak riparian forest • riparian forest • riparian scrub • mulefat scrub • cismontane alkali marsh		• chamise chaparral • southern arroyo willow riparian forest • coast live oak woodland		
Bell's sage sparrow (*Artemisiospiza belli belli*)	USFWS: BCC CDFW: WL County: Group 1	Nesting and Foraging • montane buckwheat scrub • big sagebrush scrub • granitic chamise chaparral • granitic northern mixed chaparral • red shank chaparral • semi-desert chaparral • chamise chaparral • southern mixed chaparral • non-native grassland • mulefat scrub • riparian scrub	There is 410,658 acres of modeled habitat within the biological cumulative analysis study area.	Nesting and Foraging • montane buckwheat scrub • big sagebrush scrub • granitic chamise chaparral • granitic northern mixed chaparral • red shank chaparral	Observed within the northern portion of the Boulder Brush Corridor. There is 36.4 acres of modeled nesting/foraging habitat within the Boulder Brush Facilities.	Although there is a large amount of habitat within the region, of which 58% is in public ownership and is reasonable anticipated to remain undisturbed, impacts to suitable habitat associated with the Project would be potentially significant prior to implementation of mitigation as the Project would impact more than 5% of habitat

Table 2.3-3
Group 1 and/or California Department of Fish and Wildlife Species of Special Concern Wildlife Species Present within the Boulder Brush Corridor or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal State County Group	Modeled Habitat within the Biological Cumulative Analysis Study Area	Biological Cumulative Analysis Study Area Habitat Total	Modeled Habitat within the Boulder Brush Corridor	Occurrence and Boulder Brush Facilities Habitat Total	Significance Determination
		• alluvial fan scrub		• semi-desert chaparral chamise chaparral		within the Boulder Brush Corridor (Impact W-2).
Loggerhead shrike (*Lanius ludovicianus*) (nesting)	USFWS: BCC CDFW: SSC County: Group 1	• montane buckwheat scrub • big sagebrush scrub • non-native grassland • mulefat scrub • riparian scrub • disturbed habitat • wildflower • eucalyptus woodland • desert woodland • alluvial fan scrub • semi-desert chaparral • southern mixed chaparral	There is 57,950 acres of modeled habitat within the biological cumulative analysis study area.	• montane buckwheat scrub • big sagebrush scrub • disturbed habitat • wildflower • semi-desert chaparral	Observed within the Boulder Brush Corridor. There is 24.9 acres of modeled nesting/foraging habitat within the Boulder Brush Facilities.	Although there is a large amount of habitat within the region, of which 46% is in public ownership and is reasonable anticipated to remain undisturbed, impacts to suitable habitat associated with the Project would be potentially significant prior to implementation of mitigation as the Project would impact more than 5% of habitat within the Boulder Brush Corridor (Impact W-2).
Yellow warbler (*Setophaga petechial)*	USFWS: BCC CDFW: SSC County: Group 2	• southern arroyo willow riparian forest • coast live oak woodland • oak riparian forest • riparian forest	There is 44,334 acres of modeled habitat within the biological cumulative	• southern arroyo willow riparian forest • coast live oak woodland	Observed within the Boulder Brush Corridor. There is 1.2 acres of modeled nesting/foraging	Although there is a large amount of habitat within the region, of which 39% is in public ownership and is reasonable anticipated

Table 2.3-3
Group 1 and/or California Department of Fish and Wildlife Species of Special Concern Wildlife Species Present within the Boulder Brush Corridor or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal State County Group	Modeled Habitat within the Biological Cumulative Analysis Study Area	Biological Cumulative Analysis Study Area Habitat Total	Modeled Habitat within the Boulder Brush Corridor	Occurrence and Boulder Brush Facilities Habitat Total	Significance Determination
		• riparian scrub • southern willow scrub • freshwater marsh • mulefat scrub	analysis study area.		habitat within the Boulder Brush Facilities.	to remain undisturbed, impacts to suitable habitat associated with the Project would be potentially significant prior to implementation of mitigation as the Project would impact more than 5% of habitat within the Boulder Brush Corridor (Impact W-2).
Mammals						
Western red bat (*Lasiurus blossevillii*)	USFWS: None CDFW: SSC MSCP: Not Covered County: Group 2	• southern arroyo willow riparian forest • coast live oak woodland • oak riparian forest • eucalyptus woodland • riparian forest • pine forest • riparian scrub • southern willow scrub	There is 59,859 acres of modeled habitat within the biological cumulative analysis study area.	• southern arroyo willow riparian forest • coast live oak woodland	High potential to occur. There is 1.1 acres of modeled habitat within the Boulder Brush Facilities.	Although there is a large amount of habitat within the region, of which 51% is in public ownership and is reasonable anticipated to remain undisturbed, impacts to suitable habitat associated with the Project would be potentially significant prior to implementation of mitigation as the Project would impact

Table 2.3-3
Group 1 and/or California Department of Fish and Wildlife Species of Special Concern Wildlife Species Present within the Boulder Brush Corridor or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal State County Group	Modeled Habitat within the Biological Cumulative Analysis Study Area	Biological Cumulative Analysis Study Area Habitat Total	Modeled Habitat within the Boulder Brush Corridor	Occurrence and Boulder Brush Facilities Habitat Total	Significance Determination
						more than 5% of habitat within the Boulder Brush Corridor (Impact W-2).
San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)	USFWS: None CDFW: SSC County: Group 2	• montane buckwheat scrub • big sagebrush scrub • granitic chamise chaparral • granitic northern mixed chaparral • red shank chaparral • semi-desert chaparral • chamise chaparral • southern mixed chaparral • non-native grassland • mulefat scrub • riparian scrub • alluvial fan scrub • desert woodland	There is 413,938 acres of modeled habitat within the biological cumulative analysis study area.	• montane buckwheat scrub • big sagebrush scrub • granitic chamise chaparral • granitic northern mixed chaparral • red shank chaparral • semi-desert chaparral • chamise chaparral	Observed within the Boulder Brush Corridor. There is 36.4 acres of modeled habitat within the Boulder Brush Facilities.	Although there is a large amount of habitat within the region, of which 59% is in public ownership and is reasonable anticipated to remain undisturbed, impacts to suitable habitat associated with the Project would be implementation significant prior to implementation of mitigation as the Project would impact more than 5% of habitat within the Boulder Brush Corridor (Impact W-2).
San Diego desert woodrat (*Neotoma lepida intermedia*)	USFWS: None CDFW: SSC County: Group 2	• montane buckwheat scrub • big sagebrush scrub • granitic chamise chaparral • chamise chaparral • non-native grassland	There is 415,819 acres of modeled habitat within the biological cumulative	• montane buckwheat scrub • big sagebrush scrub	High potential to occur. There is 26.0 acres of modeled habitat within the Boulder Brush	Although there is a large amount of habitat within the region, of which 58% is in public ownership and is reasonable

Table 2.3-3
Group 1 and/or California Department of Fish and Wildlife Species of Special Concern Wildlife Species Present within the Boulder Brush Corridor or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal State County Group	Modeled Habitat within the Biological Cumulative Analysis Study Area	Biological Cumulative Analysis Study Area Habitat Total	Modeled Habitat within the Boulder Brush Corridor	Occurrence and Boulder Brush Facilities Habitat Total	Significance Determination
		• mulefat scrub • riparian scrub • disturbed habitat • wildflower • alluvial fan scrub • desert woodland • southern mixed chaparral • semi-desert chaparral	analysis study area.	• granitic chamise chaparral • chamise chaparral • disturbed habitat • wildflower • semi-desert chaparral	Facilities.	anticipated to remain undisturbed, impacts to suitable habitat associated with the Project would be implementation significant as the Project would impact more than 5% of habitat within the Boulder Brush Corridor (Impact W-2).

Source: Appendix D.
Notes: USFWS = U.S. Fish and Wildlife Service; CDFW = California Department of Fish and Wildlife; County = County of San Diego; ft amsl = feet above mean sea level; m amsl = meters above mean sea level; MSCP = Multiple Species Conservation Program.
Federal Status
BCC = Birds of Conservation Concern
FE = Federally Endangered
State Status
FP = Fully Protected
SE = State Endangered
SSC = Species of Special Concern
WL = Watch List

Table 2.3-4
Jurisdictional Wetlands and Waters

Vegetation Communities and Land Cover Types	Campo Corridor Acres (All Federal)[a]		Boulder Brush Corridor Acres (Private Lands)			Total Acres	Total Linear Feet
	Acres[b]	*Linear Feet*	*Acres*[b]	*Linear Feet*	*Regulatory Authority*		
Non-Wetland Waters							
Unvegetated Channel – Ephemeral	4.89	8,839	0.61	16,035	ACOE, CDFW, RWQCB	5.50	24,874
Unvegetated Channel – Intermittent	0.01	199	0.39	2,157	ACOE, CDFW, RWQCB, County RPO	0.40	2,356
Subtotal non-wetland waters	*4.90*	*9,038*	*1.00*	*18,192*		*5.90*	*27,230*
Riparian Habitat							
Emergent Wetland, Freshwater Marsh, and Valley Sacaton Grassland	3.69	NA	3.39	—	CDFW, County RPO	7.08	—
Southern Willow Scrub	0.71	NA	0	—	—	0.71	—
Southern riparian forest	0	—	0.64	—	CDFW, County RPO	0.64	—
Subtotal riparian habitat	*4.40*	—	*4.13*	—	—	*8.53*	—
Total	9.30	9,038	*5.03*	18,192	—	14.43	27,230

Source: Appendix D.
Notes: ACOE = U.S. Army Corps of Engineers; CDFW = California Department of Fish and Wildlife; RWQCB = Regional Water Quality Control Board; RPO = Resource Protection Ordinance; NA = not applicable.
[a] The Campo Band of Diegueño Mission Indians Reservation is subject to federal regulations only.
[b] Acreage values rounded to the nearest tenth after summation (which may account for minor rounding variation).

Table 2.3-5
East County Multiple Species Conservation Program Planning Agreement Conservation Objectives

Conservation Objective[a]	Applicability/Compliance
Provide for the protection of species, natural communities, and ecosystems on a landscape level;	The Project, with mitigation, would provide for protection and conservation of special-status species and natural communities.
Preserve the diversity of plant and animal communities throughout the Planning Area;	The Project, with mitigation, would preserve the diversity of plant and animal communities throughout the Planning Area.
Protect threatened, endangered, or other special status plant and animal species, and minimizes and mitigate the take or loss of proposed Covered Species;	The Project, with mitigation, would provide for protection and conservation of special-status species and natural communities.
Identify and designate biologically sensitive habitat areas;	Biological studies have been conducted for the site to determine sensitive habitat areas. Mitigation follows the County guidelines.
Preserve habitat and contribute to the recovery of Conversed Species;	The Project, with mitigation, would provide for protection and conservation of special-status species and natural communities.
Reduce the need to list additional species;	The Boulder Brush Corridor for the Proposed project does not support candidate or species in peril. The Project is consistent with the County's guidelines and provides mitigation for County listed plant and wildlife species and therefore is expected to be consistent with the future East County MSCP Plan.

Table 2.3-5
East County Multiple Species Conservation Program Planning Agreement Conservation Objectives

Conservation Objective[a]	Applicability/Compliance
Set forth species-specific goals and objectives; and	Although there is no draft East County MSCP Plan to provide species-specific goals and objectives, the Project is consistent with the County's guidelines and provides mitigation for County listed plant and wildlife species and therefore is expected to be consistent with the future East County MSCP Plan.
Set forth specific habitat-based goals and objectives expressed in terms of amount, quality, and connectivity of habitat	Although there is no draft East County MSCP Plan to provide specific habitat-based goals and objectives expressed in terms of amount, quality, and connectivity of habitat, the Project is consistent with the County's guidelines and provides mitigation for County listed plant and wildlife species and sensitive habitats and therefore is expected to be in compliance.

Notes: Project = Campo Wind Project with Boulder Brush Facilities; County = County of San Diego; MSCP = Multiple Species Conservation Program.

[a] Conservation objectives are from County of San Diego 2014.

Table 2.3-6
Impacts to Jurisdictional Wetlands and Waters

Vegetation Communities and Cover Types	Campo Corridor Impacts Acres (All Federal[a])		Boulder Brush Corridor Impacts Acres (Private Lands)				Total Acres	Total Linear Feet
			Temporary		*Permanent*			
	Acres[b]	*Linear Feet*	*Acres*[b]	*Linear Feet*	*Acres*[b]	*Linear Feet*		
Unvegetated channel – ephemeral (ACOE, CDFW, RWQCB)	1.13	8,839	0.21	2,277	0.11	1,612	1.45	12,728
Unvegetated channel – intermittent (ACOE, CDFW, RWQCB, County RPO)	0	0	0.09	141	0.01	24	0.10	165
Subtotal non-wetland waters	*1.13*	*8,839*	*0.30*	*2,419*	*0.12*	*1,636*	*1.55*	*12,893*
Emergent wetland, freshwater marsh, and valley sacaton grassland (CDFW, County RPO)	0.54	NA	0.20	NA	0	NA	0.74	—
Southern willow scrub	0.13	NA	0	NA	0	NA	0.13	—
Southern riparian forest, and southern arroyo willow riparian forest (CDFW, County RPO)	0	—	0.20	NA	0.15	NA	0.35	—
Subtotal riparian habitat	*0.67*	—	*0.40*	*NA*	*0.15*	*NA*	*1.22*	—
Total	1.81	8,839	0.70	2,419	0.27	1,636	2.77	12,893

Source: Appendix D.

Notes: ACOE = U.S. Army Corps of Engineers; CDFW = California Department of Fish and Wildlife; RWQCB = Regional Water Quality Control Board; County = County of San Diego; RPO = Resource Protection Ordinance; NA = not applicable.

[a] The Campo Band of Diegueño Mission Indians Reservation is subject to federal regulations only.

[b] Acreage values rounded to the nearest tenth after summation (which may account for minor rounding variation).

Table 2.3-7
Cumulative – Vegetation Communities

Vegetation Community[a,b]	Inventory of Vegetation Communities in the Biological Cumulative Analysis Study Area (Acres)	Project Impacts (Acres)[c]	Cumulative Project Impacts		Biological Cumulative Analysis Study Area	
			Total Impacts to Vegetation Communities in the Biological Cumulative Analysis Study Area (Acres)	*Total Cumulative Impacts (Acres)*	*Project Impacts as Percentage of Biological Cumulative Analysis Study Area*	*Total Cumulative Impacts as Percentage of Biological Cumulative Analysis Study Area*
Alkali Marsh	87.6	—	—	—	—	—
Broadleaved Upland Forest	2,884.1	—	—	—	—	—
Chaparral	358,001.7	807.0	1,619.3	*2,426.3*	*0.45%*	*0.68%*
Chenopod Scrub	1,801.0	—	2.8	*2.8*	*0.16%*	*0.16%*
Cismontane Woodland	25,085.0	*34.5*	52.2	*86.7*	*0.21%*	*0.35%*
Closed-cone Coniferous Forest	113.5	—	—	—	0.00%	0.00%
Coastal Sage–Chaparral Transition	7,828.1	—	—	—	0.00%	0.00%
Coastal Scrub	18,887.9	—	9.3	*9.3*	*0.05%*	*0.05%*
Freshwater Marsh	278.6	*0.6*	0	*0.6*	*0.00%*	*0.22%*
General Agriculture	6,696.3	—	2.4	*2.4*	*0.04%*	*0.04%*
Great Basin Scrub	2,147.2	*45.5*	107.4	*152.9*	*5.00%*	*7.12%*
Lower Montane Coniferous Forest	9,644.1	—	—	—	0.00%	*0.00%*
Meadows and Seeps	5,379.5	—	0.1	*0.1*	*0.00%*	*0.00%*
Mojavean Desert Scrub	180.9	—	—	—	0.00%	*0.00%*
Non-Native Vegetation	30.5	—	—	—	0.00%	0.00%
Non-Native Woodland	48.4	—	—	—	0.00%	0.00%
Pinon and Juniper Woodlands	3,014.3	—	119.0	*119.0*	*3.95%*	*3.95%*
Riparian Forests	7,070.9	*1.0*	—	*1.0*	0.00%	*0.01%*
Riparian Scrub	1,415.0	*1.7*	3.6	*5.3*	*0.25%*	*0.37%*

Table 2.3-7
Cumulative – Vegetation Communities

Vegetation Community[a,b]	Inventory of Vegetation Communities in the Biological Cumulative Analysis Study Area (Acres)	Project Impacts (Acres)[c]	Cumulative Project Impacts		Biological Cumulative Analysis Study Area	
			Total Impacts to Vegetation Communities in the Biological Cumulative Analysis Study Area (Acres)	*Total Cumulative Impacts (Acres)*	*Project Impacts as Percentage of Biological Cumulative Analysis Study Area*	*Total Cumulative Impacts as Percentage of Biological Cumulative Analysis Study Area*
Riparian Woodlands	143.3	—	0.1	*0.1*	*0.07%*	*0.07%*
Sonoran Desert Scrub	6,023.5	—	45.2	*45.2*	*0.75%*	*0.75%*
Undifferentiated Open Woodland	194.0	—	—	—	0.00%	0.00%
Unvegetated Habitat	1,728.1	*0.4*	2.1	*2.5*	*0.12%*	*0.14%*
Upper Montane Coniferous Forest	13,585.2	—	—	—	0.00%	0.00%
Upper Sonoran Subshrub Scrub	3,815.0	*10.6*	101.5	*112.1*	*2.66%*	*2.94%*
Urban/Developed/ Disturbed Habitat	12,108.4	*61.3*	211.4	*272.7*	*1.75%*	*2.25%*
Valley and Foothill Grassland, meadows, herb communities	10,786.8	*30.4*	91	*121.4*	*0.84%*	*1.13%*
Total	499,048.7	993.0	2,367.3	3,360.3	0.47%	0.67%

[a] The vegetation communities are described within the higher level of their classification category (e.g., semi-desert chaparral is described under chaparral).

[b] Vegetation community categories are based on Oberbauer et al. 2008 classifications.

[c] Includes Project impacts within both the Campo Corridor and the Boulder Brush Corridor, including temporary impacts.

Table 2.3-8
Summary of Impacts and Mitigation

Impact		Mitigation	Significance After Mitigation
Boulder Brush Facilities (Private Lands)			
Candidate, Sensitive, or Special-Status Species			
Impact BI-1	Permanent direct impacts to potentially occupied Quino checkerspot butterfly habitat	M-BI-1 (Quino Checkerspot Butterfly-Specific Avoidance, Minimization, and Mitigation Measures)	Less than significant
Impact BI-2	Direct loss of County List A and B special-status plants during construction	M-BI-5 (habitat preservation)	Less than significant
Impact BI-3	Temporary direct impacts to County List A and B special-status Plants outside of designated construction areas	M-BI-2 (biological monitoring) M-BI-3 (temporary construction flagging/fencing) M-BI-4 (SWPPP)	Less than significant
Impact BI-4	Temporary direct impacts to habitat for special-status wildlife species	M-BI-2 (biological monitoring) M-BI-3 (temporary construction flagging/fencing) M-BI-4 (SWPPP) M-BI-6 (nesting bird surveys) M-BI-7 (revegetation of temporarily impacted areas)	Less than significant
Impact BI-5	Permanent direct impacts to habitat for special-status wildlife species	M-BI-5 (habitat preservation)	Less than significant
Impact BI-6	Temporary direct impacts to habitat for special-status wildlife species outside of designated construction areas	M-BI-2 (biological monitoring) M-BI-3 (temporary construction flagging/fencing)	Less than significant
Impact BI-7	Direct electrocution or collisions impact to sensitive birds.	M-BI-8 (Avian Power Line Interaction Committee Standards)	Less than significant
Impact BI-8	Permanent impacts to raptor foraging habitat.	M-BI-5 (habitat preservation)	Less than significant
Impact BI-9	Indirect temporary impacts to special-status plant species (County List A and B special-status plants) during construction	M-BI-2 (biological monitoring) M-BI-3 (temporary construction flagging/fencing) M-BI-4 (SWPPP) M-BI-10 (fugitive dust control) M-BI-11 (erosion and runoff control) M-BI-12 (regulation of chemical pollutants)	Less than significant
Impact BI-10	Indirect permanent impacts to special-status plant species (County List A and B special-status plants) during operations and maintenance	M-BI-4 (SWPPP) M-BI-10 (fugitive dust control) M-BI-11 (erosion and runoff control) M-BI-12 (regulation of chemical pollutants) M-BI-13 (prevention of invasive plant species)	Less than significant

Table 2.3-8
Summary of Impacts and Mitigation

Impact		Mitigation	Significance After Mitigation
Impact BI-11	Temporary indirect impacts to special-status wildlife species during construction	M-BI-2 (biological monitoring) M-BI-3 (temporary construction flagging/fencing) M-BI-4 (SWPPP) M-BI-6 (nesting bird survey) M-BI-7 (revegetation of temporarily impacted areas) M-BI-10 (fugitive dust control) M-BI-11 (erosion and runoff control) M-BI-12 (regulation of chemical pollutants) M-BI-13 (prevention of invasive species)	Less than significant
Impact BI-12	Permanent indirect impacts to special-status wildlife species during operations and maintenance	M-BI-10 (fugitive dust control) M-BI-11 (erosion and runoff control) M-BI-13 (prevention of invasive species) M-BI-14 (fire protection) M-BI-15 (access control)	Less than significant
Impact BI-13	Direct impacts to nesting raptors during construction	M-BI-6 (nesting bird surveys)	Less than significant
Riparian Habitat or Sensitive Natural Community			
Impact BI-14	Direct impacts to sensitive vegetation communities within the Boulder Brush Corridor	M-BI-5 (habitat preservation) M-BI-7 (revegetation of temporarily impacted areas) M-BI-16 (federal and state agency permits)	Less than significant
Impact BI-15	Direct impacts to sensitive habitat outside of the Boulder Brush Corridor	M-BI-2 (biological monitoring) M-BI-3 (temporary construction flagging/fencing) M-BI-4 (SWPPP) M-BI-16 (federal and state agency permits)	Less than significant
Impact BI-16	Direct impacts to jurisdictional aquatic resources	M-BI-5 (habitat preservation) M-BI-16 (federal and state agency permits)	Less than significant
Impact BI-17	Direct impacts to jurisdictional habitat outside of Boulder Brush Corridor	M-BI-2 (biological monitoring) M-BI-3 (temporary construction flagging/fencing) M-BI-4 (SWPPP) M-BI-7 (revegetation of temporarily impacted areas) M-BI-16 (federal and state agency permits)	Less than significant

Table 2.3-8
Summary of Impacts and Mitigation

Impact		Mitigation	Significance After Mitigation
Impact BI-18	Temporary indirect impacts to jurisdictional aquatic resources	M-BI-2 (biological monitoring) M-BI-3 (temporary construction flagging/fencing) M-BI-4 (SWPPP) M-BI-11 (erosion and runoff control) M-BI-12 (regulation of chemical pollutants) M-BI-16 (federal and state agency permits)	Less than significant
Impact BI-19	Permanent indirect impacts to jurisdictional aquatic resources	M-BI-4 (SWPPP) M-BI-11 (erosion and runoff control) M-BI-12 (regulation of chemical pollutants) M-BI-13 (prevention of invasive plant species) M-BI-14 (fire protection) M-BI-16 (federal and state agency permits)	Less than significant
Impact BI-20	Temporary indirect impact to sensitive vegetation communities	M-BI-2 (biological monitoring) M-BI-3 (temporary construction flagging/fencing) M-BI-4 (SWPPP) M-BI-7 (revegetation of temporarily impacted areas) M-BI-10 (fugitive dust control) M-BI-11 (erosion and runoff control) M-BI-12 (regulation of chemical pollutants)	Less than significant
Impact BI-21	Permanent indirect impact to sensitive vegetation communities	M-BI-4 (SWPPP) M-BI-11 (erosion and runoff control) M-BI-12 (regulation of chemical pollutants) M-BI-13 (prevention of invasive plant species) M-BI-14 (fire protection) M-BI-16 (federal and state agency permits)	Less than significant
Impact BI-22	Permanent direct impacts to RPO wetland and wetland buffer	M-BI-2 (biological monitoring) M-BI-3 (temporary construction flagging/fencing) M-BI-4 (SWPPP) M-BI-5 (habitat preservation) M-BI-7 (revegetation of temporarily impacted areas) M-BI-11 (erosion and runoff control) M-BI-12 (regulation of chemical pollutants) M-BI-16 (federal and state agency permits)	Less than significant

Table 2.3-8
Summary of Impacts and Mitigation

Impact		Mitigation	Significance After Mitigation
Wildlife Movement and Nursery Sites			
Impact BI-23	Temporary direct impacts to habitat connectivity and wildlife corridors	M-BI-2 (biological monitoring) M-BI-3 (temporary construction flagging/fencing) M-BI-7 (revegetation of temporarily impacted areas)	Less than significant
Impact BI-24	Impacts to wildlife species movement from collision and electrocution	M-BI-8 (APLIC standards) M-BI-9 (carcass removal)	Less than significant
Local Policies, Ordinances, and Adopted Plans			
Impact BI-25	Direct and indirect impacts to active migratory bird nesting	M-BI-2 (biological monitoring) M-BI-3 (temporary construction flagging/fencing) M-BI-4 (SWPPP) M-BI-5 (habitat preservation) M-BI-6 (nesting bird survey) M-BI-7 (revegetation of temporarily impacted areas) M-BI-10 (fugitive dust control) M-BI-11 (erosion and runoff control) M-BI-12 (regulation of chemical pollutants) M-BI-13 (prevention of invasive species) M-BI-14 (fire protection) M-BI-15 (access control)	Less than significant
Impact BI-26	Direct impacts to golden eagle foraging	M-BI-5 (habitat preservation)	Less than significant
Campo Wind Facilities (Reservation Lands)			
Candidate, Sensitive, or Special-Status Species			
Impact BI-A	Project impacts to 222.1 acres of potentially occupied Quino habitat.	M-BI-A (Implementation of USFWS-Issued Terms and Conditions)	Less than significant
Impact BI-B	Direct loss of County List A and B special-status plants during construction	NA	Significant and unavoidable
Impact BI-C	Temporary direct impacts to County List A and B special-status Plants outside of designated construction areas	M-BI-C (General Avoidance and Minimization Measures)	Less than significant
Impact BI-D	Permanent direct impacts to habitat for special-status wildlife species	NA	Significant and unavoidable
Impact BI-E	Impacts to special-status wildlife species from collisions	M-BI-B (Avian-Specific Avoidance, Minimization, and Mitigation Measures)	Less than significant
Impact BI-F	Impacts to special-status wildlife species from electrocution	M-BI-B (Avian-Specific Avoidance, Minimization, and Mitigation Measures)	Less than significant

Table 2.3-8
Summary of Impacts and Mitigation

Impact		Mitigation	Significance After Mitigation
Impact BI-G	Permanent impacts to raptor foraging habitat.	NA	Less than significant
Impact BI-H	Indirect temporary impacts to special-status plant species (County List A and B special-status plants) during construction	M-BI-C (General Avoidance and Minimization Measures)	Less than significant
Impact BI-I	Indirect permanent impacts to special-status plant species (County List A and B special-status plants) during operations and maintenance	M-BI-C (General Avoidance and Minimization Measures)	Less than significant
Impact BI-J	Temporary indirect impacts to special-status wildlife species during construction	M-BI-C (General Avoidance and Minimization Measures)	Less than significant
Impact BI-K	Permanent indirect impacts to special-status wildlife species during operations and maintenance	M-BI-C (General Avoidance and Minimization Measures)	Less than significant
Impact BI-L	Direct impacts to active raptor nests	M-BI-B (Avian-Specific Avoidance, Minimization, and Mitigation Measures)	Less than significant
Riparian Habitat or Sensitive Natural Community			
Impact BI-M	Direct impacts to sensitive vegetation communities within the Campo Wind Corridor	NA	Significant and unavoidable
Impact BI-N	Direct impacts to sensitive habitat outside of Campo Wind Corridor	M-BI-C (General Avoidance and Minimization Measures)	Less than significant
Impact BI-O	Direct impacts to jurisdictional aquatic resources	M-BI-D (Jurisdictional Waters and Wetlands Compensation)	Less than significant
Impact BI-P	Direct impacts to jurisdictional habitat outside of Campo Wind Corridor	M-BI-C (General Avoidance and Minimization Measures)	Less than significant
Impact BI-Q	Temporary indirect impacts to jurisdictional aquatic resources	M-BI-C (General Avoidance and Minimization Measures)	Less than significant
Impact BI-R	Permanent indirect impacts to jurisdictional aquatic resources	M-BI-C (General Avoidance and Minimization Measures)	Less than significant
Impact BI-S	Temporary indirect impact to sensitive vegetation communities	M-BI-C (General Avoidance and Minimization Measures)	Less than significant
Impact BI-T	Permanent indirect impact to sensitive vegetation communities	M-BI-C (General Avoidance and Minimization Measures)	Less than significant
Impact BI-U	Permanent direct impacts to RPO wetland and wetland buffer	None. The Campo Wind Facilities On-Reservation are not subject to the County RPO.	Significant and unavoidable

Table 2.3-8
Summary of Impacts and Mitigation

Impact		Mitigation	Significance After Mitigation
Wildlife Movement and Nursery Sites			
Impact BI-V	Temporary direct impacts to wildlife access to foraging and breeding habitat	M-BI-C (General Avoidance and Minimization Measures)	Less than significant
Impact BI-W	Impacts to wildlife species movement from electrocution	M-BI-B (Avian-Specific Avoidance, Minimization, and Mitigation Measures)	Less than significant
Impact BI-X	Impacts to wildlife species movement from collisions	M-BI-B (Avian-Specific Avoidance, Minimization, and Mitigation Measures)	Less than significant
Local Policies, Ordinances, and Adopted Plans			
Impact BI-Y	Direct and indirect impacts to active migratory bird nesting	M-BI-B (Avian-Specific Avoidance, Minimization, and Mitigation Measures)	Less than significant
Cumulative			
Impact BI-CU-1	Potential cumulative project impacts to sensitive plants and vegetation communities.	M-BI-C (General Avoidance and Minimization Measures)	Significant and unavoidable
Impact BI-CU-2	Potential cumulative indirect impacts (invasive species and dust) to sensitive plants and vegetation communities.	M-BI-C (General Avoidance and Minimization Measures)	Less than significant

Notes: County = County of San Diego; SWPPP = stormwater pollution prevention program; RPO = Resource Protection Ordinance; APLIC = Avian Power Line Interaction Committee; USFWS = U.S. Fish and Wildlife Service; NA = not applicable; On-Reservation = anything within the Campo Band of Diegueño Mission Indians Reservation Boundary.

Figure 2.3-1a
Figure 2.3-1b
Figure 2.3-1c
Figure 2.3-1d
Figure 2.3-1e
Figure 2.3-1f
Figure 2.3-1g
Figure 2.3-1h
Figure 2.3-1i
Figure 2.3-1j
Figure 2.3-1k
Figure 2.3-1l
Figure 2.3-1m

Boulder Brush Boundary
Boulder Brush Corridor

Wildlife
- B-FEHA, Ferruginous hawk
- B-MERL, Merlin
- B-SSHA, Sharp-shinned hawk
- B-NOHA, Northern harrier
- B-LOSH, Loggerhead shrike
- B-GOEA, Golden eagle
- B-YEWA, Yellow warbler
- B-COHA, Cooper's hawk
- B-TUVU, Turkey vulture
- I-QUCH, quino checkerspot butterfly
- M-BTJR, Black-tailed jackrabbit
- R-BLHL, Blainville's horned lizard
- R-COWH, San Diegan tiger whiptail

Raptor Nest Locations
- Active
- Cavity With Bird Sign
- Good Condition
- Old, Degraded
- With Bird Sign

Special-status Plants
- Colorado Desert larkspur, *Delphinium parishii* ssp. *subglobosum*
- Jacumba milk-vetch, *Astragalus douglasii* var. *perstrictus*
- Tecate tarplant, *Deinandra floribunda*
- desert beauty, *Linanthus bellus*
- hairy desert sunflower, *Geraea canescens*
- southern jewelflower, *Streptanthus campestris*
- sticky geraea, *Geraea viscida*

Vegetation and Land Cover Types
- BSS, Big Sagebrush Scrub
- CLOW, Coast Live Oak Woodland
- CLOWO, Open Coast Live Oak Woodland
- DEV, Developed
- DH, Disturbed Habitat
- EUC, Eucalyptus Woodland
- EW, Emergent Wetland
- GCC, Granitic Chamise Chaparral
- GNMX, Granitic Northern Mixed Chaparral
- MBS, Montane Buckwheat Scrub
- NVC, Unvegetated Stream Channel
- RSC, Red Shank Chaparral
- SDC, Semi-Desert Chaparral
- SWRF, Southern Arroyo Willow Riparian Forest
- WF, Wildflower Field
- 50-foot Oak Root Buffer

Jurisdiction Delineations
- ACOE/RWQCB/CDFW - Non-wetland Water - Ephemeral
- ACOE/RWQCB/CDFW - Non-wetland Water - Intermittent
- CDFW Only - Riparian Area
- County RPO Wetlands
- RPO 50-Foot Buffer
- RPO 100-Foot Buffer
- Data Stations

SOURCE: SANGIS 2017

DUDEK

0 850 1,700 Feet

FIGURE 2.3-1

Existing Biological Resources - Boulder Brush Corridor - Index

Campo Wind Project with Boulder Brush Facilities

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Reservation Boundary
Campo Corridor

Wildlife

- B-FEHA, Ferruginous hawk
- B-MERL, Merlin
- B-SSHA, Sharp-shinned hawk
- B-NOHA, Northern harrier
- B-LOSH, Loggerhead shrike
- B-COHA, Cooper's hawk
- B-TUVU, Turkey vulture
- R-BLHL, Blainville's horned lizard
- Observed Golden Eagle Flight Paths

Vegetation and Land Cover Types

- BSS, Big Sagebrush Scrub
- CLORF, Coast Live Oak Riparian Forest
- CLOW, Coast Live Oak Woodland
- CLOWD, Dense Coast Live Oak Woodland
- CLOWO, Open Coast Live Oak Woodland
- DEV, Developed
- DH, Disturbed Habitat
- EW, Emergent Wetland
- FWM, Freshwater Marsh
- GCC, Granitic Chamise Chaparral
- GNMX, Granitic Northern Mixed Chaparral
- MBS, Montane Buckwheat Scrub
- MFS, Mulefat Scrub
- NNG, Non-Native Grassland
- NNGB, Non-Native Grassland Broadleaf-Dominated
- NVC, Unvegetated Stream Channel
- RSC, Red Shank Chaparral
- SOC, Scrub Oak Chaparral
- SWS, Southern WIllow Scrub
- SWS, Southern Willow Scrub
- USS, Upper Sonoran Subshrub Scrub
- VSG, Valley Sacaton Grassland
- dBSS, Disturbed Big Sagebrush Scrub

Jurisdiction Delineations

- Non-wetland Water - Ephemeral
- Non-wetland Water - Intermittent
- Wetland or Riparian
- Data Stations

Figure 2.3-2a
Figure 2.3-2b
Figure 2.3-2c
Figure 2.3-2d
Figure 2.3-2e
Figure 2.3-2f
Figure 2.3-2g
Figure 2.3-2h
Figure 2.3-2i
Figure 2.3-2j
Figure 2.3-2k
Figure 2.3-2l
Figure 2.3-2m
Figure 2.3-2n
Figure 2.3-2o
Figure 2.3-2p
Figure 2.3-2q
Figure 2.3-2r
Figure 2.3-2s
Figure 2.3-2t
Figure 2.3-2u
Figure 2.3-2v
Figure 2.3-2w
Figure 2.3-2x
Figure 2.3-2y
Figure 2.3-2z
Figure 2.3-2aa
Figure 2.3-2ab
Figure 2.3-2ac
Figure 2.3-2ad
Figure 2.3-2ae
Figure 2.3-2af
Figure 2.3-2ag
Figure 2.3-2ah
Figure 2.3-2ai
Figure 2.3-2aj
Figure 2.3-2ak
Figure 2.3-2al
Figure 2.3-2am
Figure 2.3-2an
Figure 2.3-2ao
Figure 2.3-2ap
Figure 2.3-2aq
Figure 2.3-2ar
Figure 2.3-2as
Figure 2.3-2at
Figure 2.3-2au
Figure 2.3-2av
Figure 2.3-2aw
Figure 2.3-2ax
Figure 2.3-2ay
Figure 2.3-2az
Figure 2.3-2ba
Figure 2.3-2bb
Figure 2.3-2bc
Figure 2.3-2bd
Figure 2.3-2be
Figure 2.3-2bf
Figure 2.3-2bg
Figure 2.3-2bh
Figure 2.3-2bi
Figure 2.3-2bj
Figure 2.3-2bk
Figure 2.3-2bl
Figure 2.3-2bm
Figure 2.3-2bn
Figure 2.3-2bo

SOURCE: SANGIS 2017

DUDEK

0 1,750 3,500 Feet

FIGURE 2.3-2

Existing Biological Resources - Campo Corridor - Index

Campo Wind Project with Boulder Brush Facilities

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Boulder Brush Boundary
Boulder Brush Corridor

Impact Type
Permanent
Temporary

Wildlife
B-FEHA, Ferruginous hawk
B-MERL, Merlin
B-SSHA, Sharp-shinned hawk
B-NOHA, Northern harrier
B-LOSH, Loggerhead shrike
B-GOEA, Golden eagle
B-YEWA, Yellow warbler
B-COHA, Cooper's hawk
B-TUVU, Turkey vulture
I-QUCH, quino checkerspot butterfly
M-BTJR, Black-tailed jackrabbit
R-BLHL, Blainville's horned lizard
R-COWH, San Diegan tiger whiptail

Raptor Nest Locations
Active
Cavity With Bird Sign
Good Condition
Old, Degraded
With Bird Sign

Special-status Plants
Colorado Desert larkspur, *Delphinium parishii* ssp. *subglobosum*
Jacumba milk-vetch, *Astragalus douglasii* var. *perstrictus*
Tecate tarplant, *Deinandra floribunda*
desert beauty, *Linanthus bellus*
hairy desert sunflower, *Geraea canescens*
southern jewelflower, *Streptanthus campestris*
sticky geraea, *Geraea viscida*

Vegetation and Land Cover Types
BSS, Big Sagebrush Scrub
CLOW, Coast Live Oak Woodland
CLOWO, Open Coast Live Oak Woodland
DEV, Developed
DH, Disturbed Habitat
EUC, Eucalyptus Woodland
EW, Emergent Wetland
GCC, Granitic Chamise Chaparral
GNMX, Granitic Northern Mixed Chaparral
MBS, Montane Buckwheat Scrub
NVC, Unvegetated Stream Channel
RSC, Red Shank Chaparral
SDC, Semi-Desert Chaparral
SWRF, Southern Arroyo Willow Riparian Forest
WF, Wildflower Field
50-foot Oak Root Buffer

Jurisdiction Delineations
ACOE/RWQCB/CDFW - Non-wetland Water - Ephemeral
ACOE/RWQCB/CDFW - Non-wetland Water - Intermittent
CDFW Only - Riparian Area
County RPO Wetlands
RPO 50-Foot Buffer
RPO 100-Foot Buffer
Data Stations

Figure 2.3-3a
Figure 2.3-3b
Figure 2.3-3c
Figure 2.3-3d
Figure 2.3-3e
Figure 2.3-3f
Figure 2.3-3g
Figure 2.3-3h
Figure 2.3-3i
Figure 2.3-3j
Figure 2.3-3k
Figure 2.3-3l
Figure 2.3-3m

SOURCE: SANGIS 2017

DUDEK

0 850 1,700 Feet

FIGURE 2.3-3
Impacts to Biological Resources - Boulder Brush Corridor - Index
Campo Wind Project with Boulder Brush Facilities

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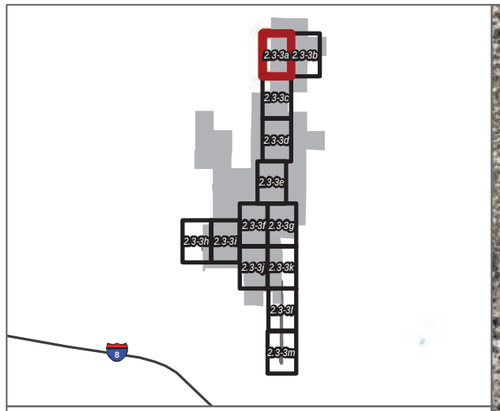

Boulder Brush Boundary

Boulder Brush Corridor

Impact Type

Permanent

Temporary

Wildlife

B-TUVU, Turkey vulture

R-COWH, San Diegan tiger whiptail

Special-status Plants

Colorado Desert larkspur, *Delphinium parishii* ssp. *subglobosum*

Jacumba milk-vetch, *Astragalus douglasii* var. *perstrictus*

sticky geraea, *Geraea viscida*

Vegetation and Land Cover Types

BSS, Big Sagebrush Scrub

CLOW, Coast Live Oak Woodland

DH, Disturbed Habitat

GNMX, Granitic Northern Mixed Chaparral

MBS, Montane Buckwheat Scrub

NVC, Unvegetated Stream Channel

RSC, Red Shank Chaparral

SDC, Semi-Desert Chaparral

50-foot Oak Root Buffer

Jurisdiction Delineations

ACOE/RWQCB/CDFW - Non-wetland Water - Ephemeral

SOURCE: SANGIS 2017

DUDEK

0 200 400 Feet

FIGURE 2.3-3a

Impacts to Biological Resources - Boulder Brush Corridor

Biological Resources Technical Report For the Campo Wind Project with Boulder Brush Facilities

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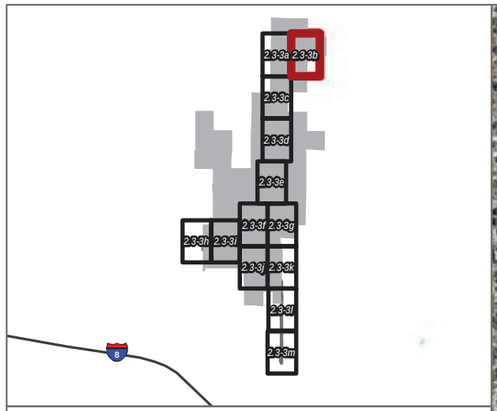

Boulder Brush Boundary

Boulder Brush Corridor

Impact Type

Permanent

Temporary

Wildlife

B-TUVU, Turkey vulture

R-COWH, San Diegan tiger whiptail

Special-status Plants

Colorado Desert larkspur, *Delphinium parishii* ssp. *subglobosum*

Jacumba milk-vetch, *Astragalus douglasii* var. *perstrictus*

sticky geraea, *Geraea viscida*

Vegetation and Land Cover Types

BSS, Big Sagebrush Scrub

CLOW, Coast Live Oak Woodland

DH, Disturbed Habitat

GNMX, Granitic Northern Mixed Chaparral

MBS, Montane Buckwheat Scrub

NVC, Unvegetated Stream Channel

RSC, Red Shank Chaparral

SDC, Semi-Desert Chaparral

50-foot Oak Root Buffer

Jurisdiction Delineations

ACOE/RWQCB/CDFW - Non-wetland Water - Ephemeral

SOURCE: SANGIS 2017

DUDEK

0 200 400 Feet

FIGURE 2.3-3b

Impacts to Biological Resources - Boulder Brush Corridor

Biological Resources Technical Report For the Campo Wind Project with Boulder Brush Facilities

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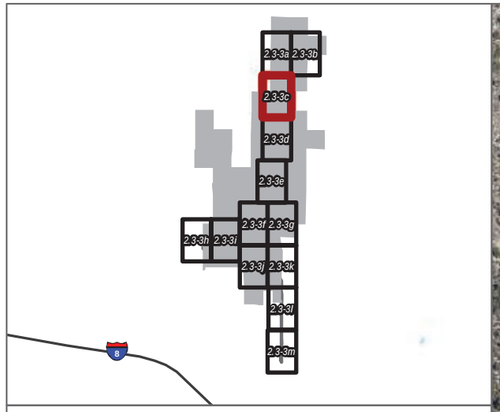

Boulder Brush Boundary

Boulder Brush Corridor

Impact Type

Permanent

Temporary

Wildlife

B-LOSH, Loggerhead shrike

B-YEWA, Yellow warbler

B-COHA, Cooper's hawk

B-TUVU, Turkey vulture

R-BLHL, Blainville's horned lizard

R-COWH, San Diegan tiger whiptail

Special-status Plants

Colorado Desert larkspur, *Delphinium parishii* ssp. *subglobosum*

Jacumba milk-vetch, *Astragalus douglasii* var. *perstrictus*

Tecate tarplant, *Deinandra floribunda*

sticky geraea, *Geraea viscida*

Vegetation and Land Cover Types

DH, Disturbed Habitat

GNMX, Granitic Northern Mixed Chaparral

MBS, Montane Buckwheat Scrub

NVC, Unvegetated Stream Channel

Jurisdiction Delineations

ACOE/RWQCB/CDFW - Non-wetland Water - Ephemeral

SOURCE: SANGIS 2017

DUDEK

0 200 400 Feet

FIGURE 2.3-3c

Impacts to Biological Resources - Boulder Brush Corridor

Biological Resources Technical Report For the Campo Wind Project with Boulder Brush Facilities

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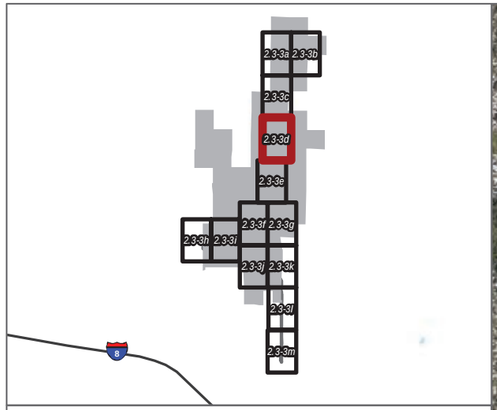

Boulder Brush Boundary

Boulder Brush Corridor

Impact Type

Permanent

Temporary

Wildlife

B-YEWA, Yellow warbler

B-TUVU, Turkey vulture

M-BTJR, Black-tailed jackrabbit

R-BLHL, Blainville's horned lizard

Special-status Plants

Colorado Desert larkspur, *Delphinium parishii* ssp. *subglobosum*

Jacumba milk-vetch, *Astragalus douglasii* var. *perstrictus*

Tecate tarplant, *Deinandra floribunda*

desert beauty, *Linanthus bellus*

hairy desert sunflower, *Geraea canescens*

southern jewelflower, *Streptanthus campestris*

sticky geraea, *Geraea viscida*

Vegetation and Land Cover Types

DH, Disturbed Habitat

GNMX, Granitic Northern Mixed Chaparral

MBS, Montane Buckwheat Scrub

NVC, Unvegetated Stream Channel

RSC, Red Shank Chaparral

Jurisdiction Delineations

ACOE/RWQCB/CDFW - Non-wetland Water - Ephemeral

SOURCE: SANGIS 2017

DUDEK

0 200 400 Feet

FIGURE 2.3-3d

Impacts to Biological Resources - Boulder Brush Corridor

Biological Resources Technical Report For the Campo Wind Project with Boulder Brush Facilities

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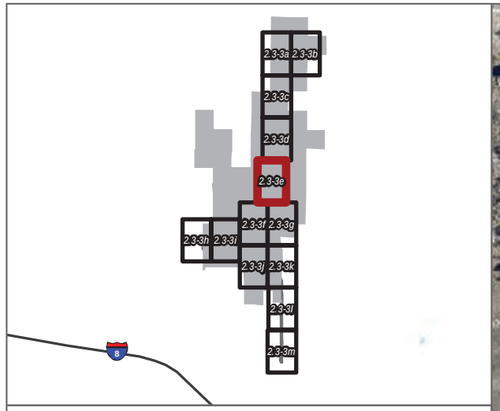

Boulder Brush Boundary

Boulder Brush Corridor

Impact Type

Permanent

Temporary

Wildlife

B-MERL, Merlin

B-COHA, Cooper's hawk

B-TUVU, Turkey vulture

M-BTJR, Black-tailed jackrabbit

R-BLHL, Blainville's horned lizard

R-COWH, San Diegan tiger whiptail

Raptor Nest Locations

Good Condition

Special-status Plants

Colorado Desert larkspur, *Delphinium parishii* ssp. *subglobosum*

Jacumba milk-vetch, *Astragalus douglasii* var. *perstrictus*

Tecate tarplant, *Deinandra floribunda*

desert beauty, *Linanthus bellus*

hairy desert sunflower, *Geraea canescens*

southern jewelflower, *Streptanthus campestris*

sticky geraea, *Geraea viscida*

Vegetation and Land Cover Types

BSS, Big Sagebrush Scrub

CLOW, Coast Live Oak Woodland

DH, Disturbed Habitat

GNMX, Granitic Northern Mixed Chaparral

MBS, Montane Buckwheat Scrub

RSC, Red Shank Chaparral

50-foot Oak Root Buffer

SOURCE: SANGIS 2017

DUDEK

0 200 400 Feet

FIGURE 2.3-3e

Impacts to Biological Resources - Boulder Brush Corridor

Biological Resources Technical Report For the Campo Wind Project with Boulder Brush Facilities

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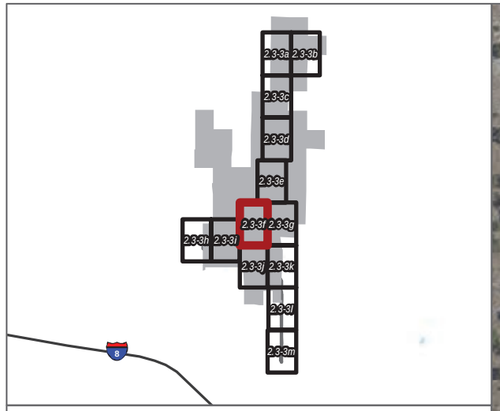

Boundary
- Boulder Brush Boundary
- Boulder Brush Corridor

Impact Type
- Permanent
- Temporary

Wildlife
- B-FEHA, Ferruginous hawk
- B-NOHA, Northern harrier
- B-GOEA, Golden eagle
- B-COHA, Cooper's hawk
- B-TUVU, Turkey vulture
- I-QUCH, quino checkerspot butterfly
- M-BTJR, Black-tailed jackrabbit
- R-BLHL, Blainville's horned lizard
- R-COWH, San Diegan tiger whiptail

Raptor Nest Locations
- Cavity With Bird Sign
- Good Condition
- Old, Degraded
- With Bird Sign

Special-status Plants
- Colorado Desert larkspur, *Delphinium parishii* ssp. *subglobosum*
- Jacumba milk-vetch, *Astragalus douglasii* var. *perstrictus*
- Tecate tarplant, *Deinandra floribunda*
- desert beauty, *Linanthus bellus*
- southern jewelflower, *Streptanthus campestris*
- sticky geraea, *Geraea viscida*

Vegetation and Land Cover Types
- BSS, Big Sagebrush Scrub
- CLOW, Coast Live Oak Woodland
- DH, Disturbed Habitat
- EW, Emergent Wetland
- GCC, Granitic Chamise Chaparral
- GNMX, Granitic Northern Mixed Chaparral
- MBS, Montane Buckwheat Scrub
- NVC, Unvegetated Stream Channel
- RSC, Red Shank Chaparral
- SDC, Semi-Desert Chaparral
- SWRF, Southern Arroyo Willow Riparian Forest
- WF, Wildflower Field
- 50-foot Oak Root Buffer

Jurisdiction Delineations
- ACOE/RWQCB/CDFW - Non-wetland Water - Ephemeral
- ACOE/RWQCB/CDFW - Non-wetland Water - Intermittent
- CDFW Only - Riparian Area

SOURCE: SANGIS 2017

DUDEK

0 200 400 Feet

FIGURE 2.3-3f

Impacts to Biological Resources - Boulder Brush Corridor

Biological Resources Technical Report For the Campo Wind Project with Boulder Brush Facilities

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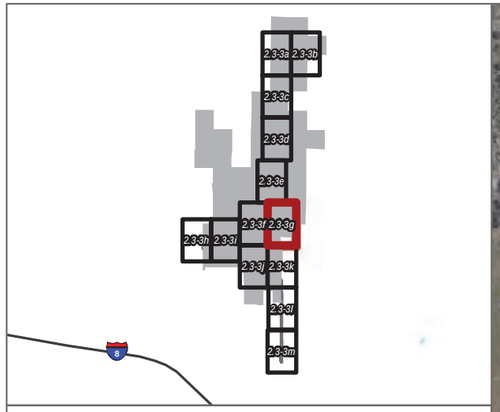

Boulder Brush Boundary
Boulder Brush Corridor

Impact Type
- Permanent
- Temporary

Wildlife
- B-NOHA, Northern harrier
- B-TUVU, Turkey vulture
- M-BTJR, Black-tailed jackrabbit
- R-BLHL, Blainville's horned lizard
- R-COWH, San Diegan tiger whiptail

Raptor Nest Locations
- Cavity With Bird Sign
- Good Condition
- Old, Degraded
- With Bird Sign

Special-status Plants
- Colorado Desert larkspur, *Delphinium parishii* ssp. *subglobosum*
- Jacumba milk-vetch, *Astragalus douglasii* var. *perstrictus*
- Tecate tarplant, *Deinandra floribunda*
- desert beauty, *Linanthus bellus*
- southern jewelflower, *Streptanthus campestris*
- sticky geraea, *Geraea viscida*

Vegetation and Land Cover Types
- BSS, Big Sagebrush Scrub
- CLOW, Coast Live Oak Woodland
- DH, Disturbed Habitat
- EW, Emergent Wetland
- GNMX, Granitic Northern Mixed Chaparral
- MBS, Montane Buckwheat Scrub
- NVC, Unvegetated Stream Channel
- RSC, Red Shank Chaparral
- SDC, Semi-Desert Chaparral
- SWRF, Southern Arroyo Willow Riparian Forest
- WF, Wildflower Field
- 50-foot Oak Root Buffer

Jurisdiction Delineations
- ACOE/RWQCB/CDFW - Non-wetland Water - Ephemeral
- ACOE/RWQCB/CDFW - Non-wetland Water - Intermittent
- CDFW Only - Riparian Area
- County RPO Wetlands
- RPO 50-Foot Buffer
- RPO 100-Foot Buffer
- Data Stations

SOURCE: SANGIS 2017

DUDEK

0 200 400 Feet

FIGURE 2.3-3g

Impacts to Biological Resources - Boulder Brush Corridor

Biological Resources Technical Report For the Campo Wind Project with Boulder Brush Facilities

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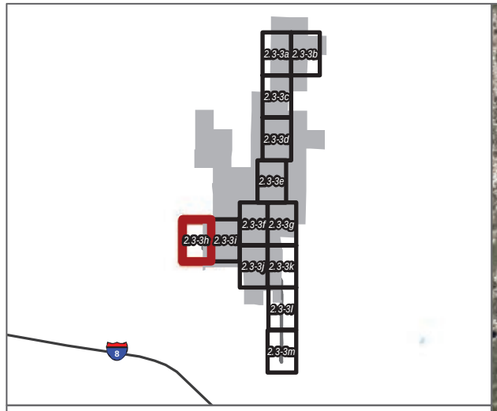

Boulder Brush Boundary
Boulder Brush Corridor

Impact Type

Permanent
Temporary

Wildlife

B-COHA, Cooper's hawk
B-TUVU, Turkey vulture
I-QUCH, quino checkerspot butterfly
M-BTJR, Black-tailed jackrabbit
R-BLHL, Blainville's horned lizard

Special-status Plants

Colorado Desert larkspur, *Delphinium parishii* ssp. *subglobosum*
Jacumba milk-vetch, *Astragalus douglasii* var. *perstrictus*
Tecate tarplant, *Deinandra floribunda*
southern jewelflower, *Streptanthus campestris*
sticky geraea, *Geraea viscida*

Vegetation and Land Cover Types

CLOW, Coast Live Oak Woodland
DH, Disturbed Habitat
GCC, Granitic Chamise Chaparral
GNMX, Granitic Northern Mixed Chaparral
MBS, Montane Buckwheat Scrub
NVC, Unvegetated Stream Channel
RSC, Red Shank Chaparral
SDC, Semi-Desert Chaparral
50-foot Oak Root Buffer

Jurisdiction Delineations

ACOE/RWQCB/CDFW - Non-wetland Water - Ephemeral

SOURCE: SANGIS 2017

DUDEK

0 200 400 Feet

FIGURE 2.3-3h

Impacts to Biological Resources - Boulder Brush Corridor

Biological Resources Technical Report For the Campo Wind Project with Boulder Brush Facilities

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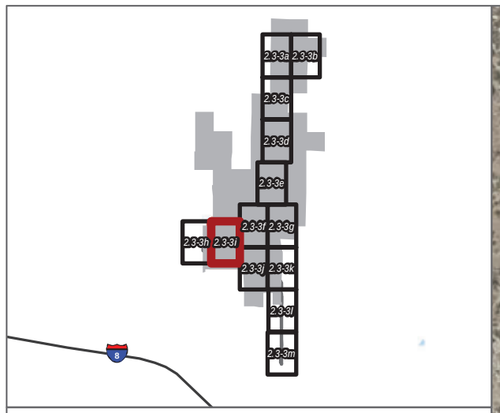

Boulder Brush Boundary
Boulder Brush Corridor

Impact Type
- Permanent
- Temporary

Wildlife
- B-FEHA, Ferruginous hawk
- B-COHA, Cooper's hawk
- B-TUVU, Turkey vulture
- I-QUCH, quino checkerspot butterfly
- M-BTJR, Black-tailed jackrabbit
- R-BLHL, Blainville's horned lizard
- R-COWH, San Diegan tiger whiptail

Raptor Nest Locations
- Cavity With Bird Sign
- Good Condition
- Old, Degraded
- With Bird Sign

Special-status Plants
- Colorado Desert larkspur, *Delphinium parishii* ssp. *subglobosum*
- Jacumba milk-vetch, *Astragalus douglasii* var. *perstrictus*
- Tecate tarplant, *Deinandra floribunda*
- desert beauty, *Linanthus bellus*
- southern jewelflower, *Streptanthus campestris*
- sticky geraea, *Geraea viscida*

Vegetation and Land Cover Types
- BSS, Big Sagebrush Scrub
- CLOW, Coast Live Oak Woodland
- DH, Disturbed Habitat
- EW, Emergent Wetland
- GCC, Granitic Chamise Chaparral
- GNMX, Granitic Northern Mixed Chaparral
- MBS, Montane Buckwheat Scrub
- NVC, Unvegetated Stream Channel
- RSC, Red Shank Chaparral
- SDC, Semi-Desert Chaparral
- SWRF, Southern Arroyo Willow Riparian Forest
- WF, Wildflower Field
- 50-foot Oak Root Buffer

Jurisdiction Delineations
- ACOE/RWQCB/CDFW - Non-wetland Water - Ephemeral
- ACOE/RWQCB/CDFW - Non-wetland Water - Intermittent
- CDFW Only - Riparian Area
- County RPO Wetlands
- RPO 50-Foot Buffer
- RPO 100-Foot Buffer
- Data Stations

SOURCE: SANGIS 2017

DUDEK

0 200 400 Feet

FIGURE 2.3-3i

Impacts to Biological Resources - Boulder Brush Corridor

Biological Resources Technical Report For the Campo Wind Project with Boulder Brush Facilities

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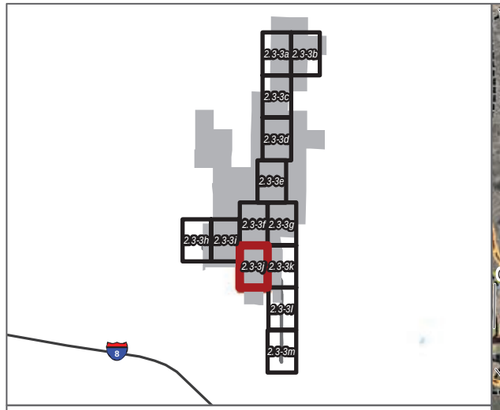

Boulder Brush Boundary
Boulder Brush Corridor

Impact Type
- Permanent
- Temporary

Wildlife
- B-TUVU, Turkey vulture
- M-BTJR, Black-tailed jackrabbit
- R-BLHL, Blainville's horned lizard

Raptor Nest Locations
- Cavity With Bird Sign
- Good Condition
- Old, Degraded
- With Bird Sign

Special-status Plants
- Colorado Desert larkspur, *Delphinium parishii* ssp. *subglobosum*
- Jacumba milk-vetch, *Astragalus douglasii* var. *perstrictus*
- Tecate tarplant, *Deinandra floribunda*
- desert beauty, *Linanthus bellus*
- southern jewelflower, *Streptanthus campestris*
- sticky geraea, *Geraea viscida*

Vegetation and Land Cover Types
- BSS, Big Sagebrush Scrub
- CLOW, Coast Live Oak Woodland
- CLOWO, Open Coast Live Oak Woodland
- DH, Disturbed Habitat
- GCC, Granitic Chamise Chaparral
- GNMX, Granitic Northern Mixed Chaparral
- MBS, Montane Buckwheat Scrub
- NVC, Unvegetated Stream Channel
- RSC, Red Shank Chaparral
- SDC, Semi-Desert Chaparral
- SWRF, Southern Arroyo Willow Riparian Forest
- WF, Wildflower Field
- 50-foot Oak Root Buffer

Jurisdiction Delineations
- ACOE/RWQCB/CDFW - Non-wetland Water - Ephemeral
- ACOE/RWQCB/CDFW - Non-wetland Water - Intermittent
- CDFW Only - Riparian Area
- County RPO Wetlands
- RPO 50-Foot Buffer
- Data Stations

SOURCE: SANGIS 2017

DUDEK

0 200 400 Feet

FIGURE 2.3-3j

Impacts to Biological Resources - Boulder Brush Corridor

Biological Resources Technical Report For the Campo Wind Project with Boulder Brush Facilities

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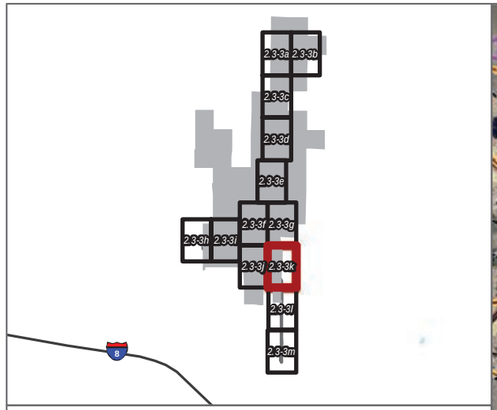

Boulder Brush Boundary
Boulder Brush Corridor

Impact Type
- Permanent
- Temporary

Wildlife
- M-BTJR, Black-tailed jackrabbit

Raptor Nest Locations
- Cavity With Bird Sign
- Good Condition
- Old, Degraded
- With Bird Sign

Special-status Plants
- Colorado Desert larkspur, *Delphinium parishii* ssp. *subglobosum*
- Jacumba milk-vetch, *Astragalus douglasii* var. *perstrictus*
- Tecate tarplant, *Deinandra floribunda*
- desert beauty, *Linanthus bellus*
- southern jewelflower, *Streptanthus campestris*
- sticky geraea, *Geraea viscida*

Vegetation and Land Cover Types
- BSS, Big Sagebrush Scrub
- CLOW, Coast Live Oak Woodland
- CLOWO, Open Coast Live Oak Woodland
- DH, Disturbed Habitat
- GNMX, Granitic Northern Mixed Chaparral
- MBS, Montane Buckwheat Scrub
- NVC, Unvegetated Stream Channel
- RSC, Red Shank Chaparral
- SDC, Semi-Desert Chaparral
- SWRF, Southern Arroyo Willow Riparian Forest
- WF, Wildflower Field
- 50-foot Oak Root Buffer

Jurisdiction Delineations
- ACOE/RWQCB/CDFW - Non-wetland Water - Ephemeral
- ACOE/RWQCB/CDFW - Non-wetland Water - Intermittent
- CDFW Only - Riparian Area
- County RPO Wetlands
- RPO 50-Foot Buffer
- Data Stations

SOURCE: SANGIS 2017

DUDEK

0 200 400 Feet

FIGURE 2.3-3k

Impacts to Biological Resources - Boulder Brush Corridor

Biological Resources Technical Report For the Campo Wind Project with Boulder Brush Facilities

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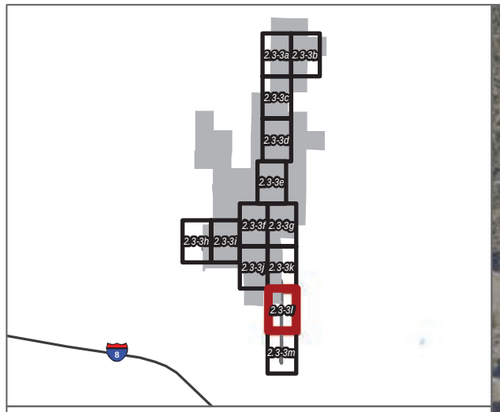

Boulder Brush Boundary

Boulder Brush Corridor

Impact Type

Permanent

Temporary

Wildlife

M-BTJR, Black-tailed jackrabbit

Special-status Plants

Jacumba milk-vetch, *Astragalus douglasii* var. *perstrictus*

Vegetation and Land Cover Types

BSS, Big Sagebrush Scrub

CLOW, Coast Live Oak Woodland

CLOWO, Open Coast Live Oak Woodland

DH, Disturbed Habitat

EUC, Eucalyptus Woodland

NVC, Unvegetated Stream Channel

SWRF, Southern Arroyo Willow Riparian Forest

WF, Wildflower Field

50-foot Oak Root Buffer

Jurisdiction Delineations

ACOE/RWQCB/CDFW - Non-wetland Water - Ephemeral

CDFW Only - Riparian Area

County RPO Wetlands

RPO 50-Foot Buffer

Data Stations

SOURCE: SANGIS 2017

DUDEK

0 200 400 Feet

FIGURE 2.3-3I

Impacts to Biological Resources - Boulder Brush Corridor

Biological Resources Technical Report For the Campo Wind Project with Boulder Brush Facilities

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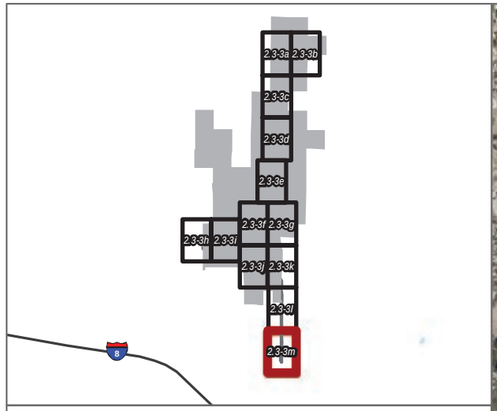

Boundary Brush Corridor

Impact Type

- Permanent
- Temporary

Vegetation and Land Cover Types

- BSS, Big Sagebrush Scrub
- CLOW, Coast Live Oak Woodland
- DEV, Developed
- DH, Disturbed Habitat
- EUC, Eucalyptus Woodland
- GNMX, Granitic Northern Mixed Chaparral
- NVC, Unvegetated Stream Channel
- RSC, Red Shank Chaparral
- WF, Wildflower Field
- 50-foot Oak Root Buffer

Jurisdiction Delineations

- ACOE/RWQCB/CDFW - Non-wetland Water - Ephemeral

SOURCE: SANGIS 2017

DUDEK

0 200 400 Feet

FIGURE 2.3-3m

Impacts to Biological Resources - Boulder Brush Corridor

Biological Resources Technical Report For the Campo Wind Project with Boulder Brush Facilities

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Reservation Boundary
Campo Corridor
Permanent Impacts

Wildlife

- B-FEHA, Ferruginous hawk
- B-MERL, Merlin
- B-SSHA, Sharp-shinned hawk
- B-NOHA, Northern harrier
- B-LOSH, Loggerhead shrike
- B-COHA, Cooper's hawk
- B-TUVU, Turkey vulture
- R-BLHL, Blainville's horned lizard
- Observed Golden Eagle Flight Paths

Vegetation and Land Cover Types

- BSS, Big Sagebrush Scrub
- CLORF, Coast Live Oak Riparian Forest
- CLOW, Coast Live Oak Woodland
- CLOWD, Dense Coast Live Oak Woodland
- CLOWO, Open Coast Live Oak Woodland
- DEV, Developed
- DH, Disturbed Habitat
- EW, Emergent Wetland
- FWM, Freshwater Marsh
- GCC, Granitic Chamise Chaparral
- GNMX, Granitic Northern Mixed Chaparral
- MBS, Montane Buckwheat Scrub
- MFS, Mulefat Scrub
- NNG, Non-Native Grassland
- NNGB, Non-Native Grassland Broadleaf-Dominated
- NVC, Unvegetated Stream Channel
- RSC, Red Shank Chaparral
- SOC, Scrub Oak Chaparral
- SWS, Southern WIllow Scrub
- SWS, Southern Willow Scrub
- USS, Upper Sonoran Subshrub Scrub
- VSG, Valley Sacaton Grassland
- dBSS, Disturbed Big Sagebrush Scrub

Jurisdiction Delineations

- Non-wetland Water - Ephemeral
- Non-wetland Water - Intermittent
- Wetland or Riparian
- Data Stations
- Permanent Impacts

SOURCE: SANGIS 2017

DUDEK

0 1,750 3,500 Feet

FIGURE 2.3-4

Impacts to Bioloigcal Resources - Campo Corridor - Index

Campo Wind Project with Boulder Brush Facilities

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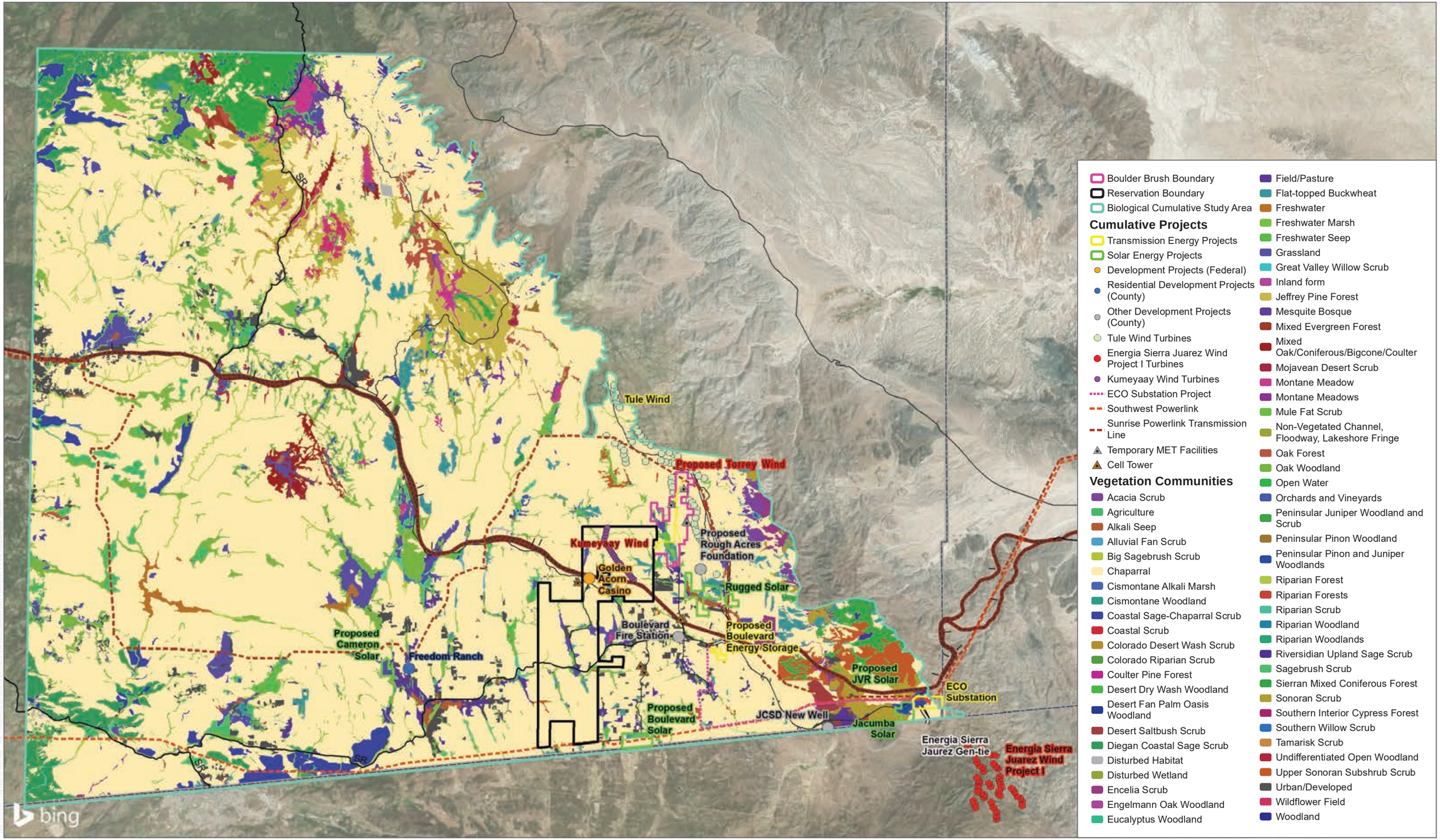

SOURCE: Bing Maps 2018; County of San Diego 2018

DUDEK

0 9,500 19,000 Feet

FIGURE 2.3-5

Biological Cumulative Study Area Vegetation

Campo Wind Project with Boulder Brush Facilities

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