

#### 4.7 Jurisdictional Aquatic Resources

#### 4.7.1 Boulder Brush Corridor

A formal jurisdictional delineation was conducted in June and July 2018 for the Boulder Brush Corridor. Additional delineation fieldwork was performed in September 2018 and in June 2019. The jurisdictional areas in the Boulder Brush Corridor consist of tributaries to Tule Creek, Tule Creek itself, and tributaries to Carrizo Creek (see Figure 4-1 series). 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. 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. Overall, the features in the Boulder Brush Corridor are ephemeral features, flowing during rain events as well as Tule Creek, which is considered an intermittent drainage although some of its flow appears to be subsurface.

Approximately 1.00 acres of the Boulder Brush Corridor is composed of non-wetland stream features considered jurisdictional waters of the United States and state (see Figure 4-1 series). Additionally, 4.03 acres of riparian habitat regulated by CDFW is associated with Tule Creek. Based on the jurisdictional investigation in this area, the riparian habitat did not meet the criteria for a federally defined wetland (e.g., the co-occurrence of hydrophytic vegetation, hydric soil, and wetland hydrology). However, these small riparian communities are associated with (and dependent on) ephemeral stream features and do qualify as riparian habitat regulated by CDFW. Table 4-7, Data Station Results, includes the results of the data station samples. Attachment K, Data Station Forms, includes the data station forms and Ordinary High Water Mark Datasheets representing the non-wetland waters mapped in the Boulder Brush Corridor. Table 4-8, Waters and Wetlands of the U.S., State, and County RPO Wetlands within the Boulder Brush Facilities, summarizes the acreage and linear feet of the jurisdictional features.

Table 4-7
Data Station Results

Sample Point	Hydrophytic Vegetation	Hydric Soils	Hydrology
1	No	No	Yes
2A	Yes	No	Yes
2B	No	No	Yes
2C	No	No	No
3	No	Yes	Yes
4a	Yes	No	No

Table 4-7
Data Station Results

Sample Point	Hydrophytic Vegetation	Hydric Soils	Hydrology
4b	No	No	No
4c	Yes	No	Yes
4d	Yes	No	Yes
4e	No	No	Yes
4f	No	No	No

Table 4-8
Waters and Wetlands of the U.S., State, and County RPO Wetlands
within the Boulder Brush Corridor

	Type of Habitat	Type of Habitat			Regulatory
Feature Type	(Oberbauer et al. 2008)	(Cowardin et al. 1979)	Acres	Linear Feet	Authority
Non-wetland waters	Waters of the United States/unvegetated channel – ephemeral	Riverine; Unconsolidated Bottom, Sand, Ephemerally Flooded, Fresh	0.61	16,035	USACE, CDFW, RWQCB
Non-wetland waters	Waters of the United States/unvegetated channel – intermittent	Riverine; Unconsolidated Bottom, Sand, Intermittently Flooded, Fresh	0.39	2,157	USACE, CDFW, RWQCB, County RPO
Riparian habitat	Southern riparian forest	Palustrine; Scrub/Shrub Broad-leaved, Deciduous, Seasonally Flooded, Fresh	0.64	N/A	CDFW, County RPO
Emergent wetland	Emergent wetland	Riparian; emergent, lentic, riparian	3.39	N/A	CDFW, County RPO
	Total Potenti	al Jurisdictional Waters	5.03	18,192	_

Note: Totals do not sum due to rounding.

#### **Waters of the United States**

Tule Creek is located within 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 tumblemustard, and cheatgrass. 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 many of these ephemeral channels have been directly impacted by off-road vehicle use (predominantly motorized dirt bikes). The disturbance created by these activities often bisect the channel or the length of a channel has been impacted by dirt bike use.

Data station samples were taken within, and adjacent to, the defined channel in Tule Creek and within the overall floodplain (Figures 4-1n through 4-1p). USACE requires three parameters to qualify as a wetland (USACE 1987), and none of the data station samples resulted in positive indicators for all three criteria (see Table 4-7). Therefore, the large channel in Tule Creek and smaller channels to the north are considered an intermittent non-wetland waters of the United States.

None of the ephemeral drainages (tributaries to Tule Creek and Carrizo Creek) within the Boulder Brush Corridor supported hydrophytic vegetation; therefore, no data station samples were conducted in these areas. These features are considered ephemeral non-wetland waters of the United States.

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 USACE.

#### **Streambed or Riparian Habitat of the State**

CDFW regulates streambeds and riparian vegetation associated with streambeds. All of the non-wetland waters of the United States are also streambeds regulated by CDFW. Additionally, the riparian vegetation (i.e., southern riparian forest and emergent wetland) associated with Tule Creek is considered riparian habitat regulated by CDFW.



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 RWQCB.

#### **Resource Protection Ordinance Wetland Determination**

Lands having one or more of the following attributes are defined as "wetlands" in the RPO: (aa) At least periodically, the land supports a predominance of hydrophytes (plants whose habitat is water or very wet places); (bb) The substratum is predominantly undrained hydric soil; or (cc) An ephemeral or perennial stream is present, whose substratum is predominantly non-soil and such lands contribute substantially to the biological functions or values of wetlands in the drainage system (County of San Diego 2012).

RPO wetlands have been identified at three locations associated with Tule Creek within the Boulder Brush Corridor (see Figure 4-1 series).

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 supports red willow, salt cedar (*Tamarix ramosissima*), mulefat (*Baccharis salicifolia* ssp. *salicifolia*), coyote brush (*Baccharis pilularis*), big sagebrush, bromes (*Bromus* spp.), and other species (Figure 4-1 series). There is a small patch of Mexican rush near the edge of the floodplain, but it was too small to map separately. Overall, the overstory of the southern arroyo willow riparian forest is composed of red willow and the understory is dominated by upland species. The intermittent channel located in the understory of the southern arroyo willow riparian forest associated with Tule Creek is also considered RPO wetlands (Figure 4-1 series).

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 (Figure 4-1 series). There is not a predominance of hydrophytic vegetation in the herb or shrub strata within either of these areas. Because the southern arroyo willow 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 remaining features within the Boulder Brush Corridor are ephemeral non-wetland waters or streambeds. Based on the lack of hydric soils and hydrophytic vegetation in the ephemeral drainages in the Boulder Brush Corridor, and the presence of well-drained soil, the ephemeral



drainages do not have the biological functions of a wetland, nor do they have populations of wetland dependent species, and therefore are not considered a RPO wetland.

#### **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 Endangered Species Act) that require greater wetland buffer widths.

RPO wetlands have been identified at three locations associated with Tule Creek within the Boulder Brush Corridor, as discussed above. 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.

#### 4.7.2 Campo Corridor

A formal jurisdictional delineation was conducted in 2017 and 2018 for the Campo Corridor. Overall, the features in the Campo Corridor are ephemeral channels that flow during rain events; there is one small intermittent channel.

The jurisdictional aquatic resources in 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 tumblemustard, and cheatgrass. 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 U.S. 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 USACE.

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 USACE.

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 (Figure 4-2 series). One seep/spring supports emergent wetland that is otherwise in a completely upland area in the northeast corner of the Campo Corridor (DS 1a–b). Another seep/spring supports a small freshwater marsh adjacent to a dirt road near Live Oak Trail (DS 2a–b, DS 3). 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 (DS 5a–b, DS 6a–b, DS 7a–b, and DS 8a–d). Table 4-9 includes the results of the data station samples within the Campo Corridor. The data station forms and OHWM datasheets representing the non-wetland waters mapped in the Campo Corridor are included as an appendix to the *Campo Wind Project Biological Technical Report* (Appendix H to the Campo EIS). These features are shown on Figure 4-2 series.

Table 4-9
Data Station Results – Campo Corridor

Sample Point	Hydrophytic Vegetation	Hydric Soils	Hydrology	Wetland Vegetation
DS 1a	Yes	Yes	Yes	Emergent wetland
DS 1b	Yes	Yes	No	N/A
DS 2a	Yes	No	No	N/A
DS 2b	Yes	No	No	N/A

Table 4-9
Data Station Results – Campo Corridor

Sample Point	Hydrophytic Vegetation	Hydric Soils	Hydrology	Wetland Vegetation
DS 3	Yes	Yes	Yes	Freshwater marsh
DS 4	No	No	Yes	N/A
DS 5a	Yes	Yes	Yes	Emergent wetland
DS 5b	No	No	Yes	N/A
DS 6a	No	No	Yes	N/A
DS 6b	No	Yes	Yes	N/A
DS 7a	Yes	Yes	Yes	Emergent wetland
DS 7b	Yes	No	No	N/A
DS 8a	Yes	Yes	Yes	Emergent wetland
DS 8b	Yes	Yes	Yes	Emergent wetland
DS 8c	Yes	Yes	Yes	Southern willow scrub
DS 8d	No	Yes	Yes	N/A

#### 4.8 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, 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.

The Boulder Brush Corridor is located within the Peninsular Range. 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 Boundary is located within 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 Boundary. Tule Creek runs north/south within the southern half of the Boulder Brush Boundary.

There is what appears to be a manufactured impoundment along Tule Creek just north of the western portion of the Boulder Brush Boundary.

The Campo Corridor is located just west and southwest of the Boulder Brush Corridor, with the Cleveland National Forest to the north and Baja California Mexico to the south. Habitat in the Reservation is open with occasional roads, residences and other buildings. There are a couple of wide floodplains with intermittent channels in the central portion of the Campo Corridor as well as lots of small ephemeral washes throughout the Reservation.

Wildlife corridors are considered sensitive by resource and conservation agencies. For the most part, the areas in and around the Boulder Brush Corridor have limited human disturbance and similar vegetation communities, though there is evidence of disturbance from off-road vehicles. The Boulder Brush Corridor is not readily identifiable as a corridor or linkage per se, because wildlife movement is not constrained or directed through any particular area within the Boulder Brush Corridor. The Boulder Brush Corridor is, however, still included within a Core Wildlife Area,<sup>5</sup> due to its size and the undeveloped land in the surrounding area (County of San Diego 2010a).

Both the Boulder Brush Corridor and Campo Corridor are located in the same general area of rural southeast San Diego County. The vicinity is generally surrounded by undeveloped landscapes to the north and east, with rural residential scattered to the south and west. I-8 is located south of the Boulder Brush Boundary and bisects the Reservation. Wildlife currently are able to traverse the Project Area and surrounding undeveloped areas in an unencumbered manner. This topography does not pose difficulties for most wildlife use. While mule deer, coyote, cougar, bobcat, and other species are readily able to scale steep slopes, this site has few steep slopes; most of the hills are gently rolling. Much of the site is comprised of scrub habitat providing cover opportunities for all sizes of wildlife, ranging from small mammals to mule deer. The oak trees provide nesting, foraging, and cover opportunities for both raptors and songbirds, while the open floodplain areas of Tule Creek provide foraging opportunities for a variety of birds, invertebrates, and small mammals. Larger mammals such as mule deer and cougars tend to take the "path of least resistance" and are as likely to utilize the off-road trails and dirt roads as the other relatively open scrub communities when traveling through the site, particularly in non-daylight hours. Further, the Project is situated adjacent to, or near, Bureau of Land Management open space, which allows for unhindered movement.

"Sensitive habitat lands" as defined by the County (County of San Diego 2012) include wildlife corridors. The Boulder Brush Corridor is not likely to be part of a regional corridor or linkage for large

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.

mammals due to the lack of topography surrounding the site that would constrain wildlife to traverse only through the area. Wildlife can move throughout the Boulder Brush Corridor unconstrained.

While I-8 represents a significant barrier to larger mammal movement, the Reservation may serve as a portion of home ranges for larger mammals, such as mule deer and cougar.

The Project Site is located approximately 2.1 miles west of designated critical habitat for Peninsular bighorn sheep (Figure 2-1). The site is likely too removed from the eastern-sloped open mountainous terrain that bighorn sheep prefer, and the Project Site is too densely vegetated to provide suitable habitat for the species. In addition, the Project Site does not provide intermountain connectivity habitat between occupied mountain ranges and Peninsular bighorn sheep have not been identified in the area. There are no active water impoundments or stock ponds within the Project Site. While there are potential water sources approximately 2.5 and 3.75 miles southeast of the southeastern most corner of the Boulder Brush Boundary and 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 their known range, USFWS Critical Habitat, and unsuitable habitat between the Project Site and known range, this species is not expected to occur within the site nor use the site for movement. Additionally, the 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.

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. This is a broad-front route that covers much landscape. In Southern California, birds typically use the coast and inland areas. The Pacific Coast route is used by gulls, ducks, and other water birds. The longest and most important route of the Pacific Flyway is that originating in northeastern Alaska. This route, which includes most waterfowl and shorebirds, passes through the interior of Alaska and then branches such that large flights continue southeast into the Central and Mississippi Flyways, or they turn in a southwesterly direction and pass through the interior valleys of California, ending or passing through the Salton Sea. The southward route of long-distance migratory land birds of the Pacific Flyway that typically overwinter south of the United States extends through the interior of California to the mouth of the Colorado River and on to their winter quarters, which may be located in western Mexico (USGS 2013b).

The Salton Sea, approximately 40 miles northeast of the Boulder Brush Corridor, is an important stopover for many birds that travel inland. The inland Pacific Flyway migration route, which is focused on a stopover at the Salton Sea, is east of the Boulder Brush and Campo Corridors. A study from 1985 to 1999 focused on shorebird migration and recorded avian use at the Salton Sea and adjacent Imperial Valley. Large numbers of shorebirds, including black-necked stilt



(Himantopus mexicanus), American avocet (Recurvirostra americana), western sandpiper (Calidris mauri), and dowitchers (Limnodromus spp.) were recorded during migration periods (Shuford et al. 2002). In addition, the study showed that birds traveling to the Salton Sea use the sea not only as a migratory stopover, but also as a wintering area for many species, including the mountain plover (Charadrius montanus) (Shuford et al. 2002). Migration timing varies from species to species, and for some, there is little documentation of the timing; for others, arrivals and departures have been well documented (Unitt 2004). In general, bird migration occurs March through April, and August through November. The Corridors do 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 to the Project Site are Tule Lake, located almost 4.5 miles southeast, and Morena Reservoir, located approximately 13 miles west. Therefore, although birds likely migrate over the site and certain birds may forage on site, the Project Site 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.

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#### 5 PROJECT IMPACTS

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 Boulder Brush Facilities. A number of mitigation measures are included to avoid, minimize, and/or mitigate potential impacts to less-than-significant levels; these measures are summarized in Section 11, Summary of Project Impacts and Mitigation, of this report.

As discussed in the Introduction, this report also describes the Campo Wind Facilities, in order to support the County's review of the Project as a whole under CEQA. However, the approval of the Campo Wind Facilities On-Reservation falls under the jurisdiction of the BIA, subject to NEPA. Neither the state nor the County have the ability to regulate or mitigate impacts to biological resources that arise from development On-Reservation.

**Direct impacts** refer to 100% permanent loss of a biological resource. For purposes of this analysis, the permanent direct impacts associated with the Boulder Brush Facilities refers to the limits of grading (i.e., the development footprint) for installation of the poles, access roads, the switch yard and high-voltage substation. 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 (shown on Figure 5-1f), a laydown yard needed for installation of the gen-tie poles, and a parking area during construction, . To provide erosion control, slope stabilization, or other necessary function, areas of temporary direct impacts would be replanted with native vegetation following construction. Areas of temporary impacts to waters would be recontoured to pre-disturbance elevations to ensure the continued functions of these resources postconstruction. However, since the Boulder Brush developer is not seeking restoration credit for impacts, all direct impacts to biological resources are considered permanent. Direct impacts were quantified by overlaying the survey data layers on GIS-located biological resources. In addition, the Boulder Brush Facilities may have direct impacts to biological resources during operations and maintenance (O&M). These impacts could include bird and/or bat electrocutions at overhead line locations. Direct impacts are shown in the Figure 5-1, Impacts to Biological Resources - Boulder Brush – Index and Figure 5-1, Impacts to Biological Resources - Boulder Brush mapbook. Decommissioning would involve activities similar to construction with no new areas of disturbance and thus would not result in additional direct impacts.

Long-term permanent direct impacts associated with the Campo Wind Facilities refers to the impacts within the limits of grading for the wind turbines, access roads, and associated components (i.e., collector substation, gen-tie line, FMZ, O&M building, parking, batch plant, meteorological towers). These direct impacts are shown in the Figure 5-2, Impacts to Biological Resources -

Reservation – Index and Figure 5-2, Impacts to Biological Resources - Reservation mapbook. There are no temporary impacts described for the Campo Wind Facilities because no temporary impact areas have been distinguished from permanent impacts within the Campo Wind Facilities at this time (i.e. all impacts are considered permanent).

**Indirect impacts** are reasonably foreseeable effects caused by Boulder Brush Facilities implementation on remaining or adjacent biological resources outside the direct limits of grading and indirect impacts associated with O&M of the permanent Boulder Brush Facilities components. Indirect impacts may affect areas within the defined Boulder Brush Corridor, but outside the limits of grading, including non-impacted areas and areas outside the development footprint, such as downstream effects. During construction and decommissioning of the Boulder Brush Facilities, 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; habitat fragmentation; invasive species; construction-related chemical pollutants (e.g., gas, oil and other fluids used by construction equipment); and alternation of natural fire regime. However, the Boulder Brush Facilities grading would be subject to restrictions and requirements that address erosion and runoff, including the federal Clean Water Act and the National Pollution Discharge Elimination System program, preparation of a SWPPP, and 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 Boulder Brush Facilities impacts with respect to erosion/runoff, altered hydrology, and potential impacts from chemical pollutants. Permanent indirect impacts to adjacent open space 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.

**Cumulative impacts** refer to the combined environmental effects of the Project and other past, present and probably 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. This report does not include analysis of cumulative impacts; this analysis is being prepared separately for direct inclusion in the EIR.

#### 5.1 Riparian Habitat or Sensitive Vegetation Communities

#### 5.1.1 Boulder Brush Facilities

The significance of these potential impacts to riparian and sensitive vegetation communities is determined through application of the County's Significance Guidelines, as described in Section 7.1, Guidelines for the Determination of Significance, of this report.

#### 5.1.1.1 Direct Impacts to Riparian Habitat or Sensitive Vegetation Communities

#### **Temporary Direct Impacts**

Impact V-1: Temporary Direct Impacts to Riparian Habitat or Sensitive Vegetation Communities within the Boulder Brush Corridor

There are temporary direct impacts associated with the Boulder Brush Facilities development footprint, including construction impacts from road grading, gen-tie pole installation, a laydown yard needed for installation of the gen-tie poles, a parking area during construction. Areas temporarily impacted by these activities will be replanted with native vegetation following Boulder Brush Facilities construction. In addition, there will be a 12-foot wide construction access which crosses Tule Creek (see Figure 5-1f). This access will be utilized only during construction to drive a pull truck across it to string cables, and will not be a permanent access road. Vegetation in this area will be trimmed or disked and no gravel or pavement will be placed within the creek. Following Boulder Brush Facilities construction, the area will be re-contoured and replanted to restore Tule Creek to pre-Project conditions. However, for habitat mitigation purposes, these impacts are considered permanent and mitigated through habitat conservation. Additionally, construction-related temporary direct impacts to vegetation communities could result from clearing, trampling, or grading of vegetation outside of the development footprint in the absence of avoidance and mitigation 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.

The significance determination of these potential impacts is presented in Section 7.2.1 of this Report.

#### Permanent Direct Impacts

Impact V-2: Permanent Direct Impacts to Sensitive Vegetation Communities within the Boulder Brush Corridor

Direct impacts to vegetation communities would occur as a result of grading for the installation of gen-tie poles, access roads, the switchyard and high-voltage substation, and fuel modification zones (FMZs) (i.e., the development footprint). Table 5-1 shows the acreage of direct impacts to vegetation communities in the Boulder Brush Facilities development footprint as a result of these activities (see Figure 5-1 series).

Per the County's Report Format and Content Requirements (County of San Diego 2010b), the oak root protection zone was created by establishing a 50-foot buffer around all non-impacted oak woodlands in the Boulder Brush Corridor, measured outward from the outside edge of the canopy. The oak root protection zone is shown in the Figure 5-1 series.

Table 5-1
Permanent and Temporary Impacts to Vegetation Communities and Land Cover Types
within the Boulder Brush Facilities

General Vegetation Community/Land Cover Category	Vegetation Type (Holland/Oberbauer Code <sup>a</sup> )	Permanent Impacts (Acres)	Temporary Impacts (Acres)	Total Impacts (Acres)
Disturbed and	Disturbed Habitat (11300)	5.5	2.4	8.0
Developed Areas (10000)	Developed (12000)	0.01	<0.01	0.01
	Disturbed and Developed Areas Subtotal <sup>1</sup>	5.6	2.4	8.1
Scrub and Chaparral	Montane buckwheat scrub (32800) <sup>b</sup>	5.7	11.3	17.0
(30000)	Big Sagebrush Scrub (35210) <sup>b</sup>	2.7	6.4	9.2
	Granitic Northern Mixed Chaparral (37131) <sup>b</sup>	9.6	23.8	33.4
	Granitic Chamise Chaparral (37210) <sup>b</sup>	1.1	2.5	3.6
	Red Shank Chaparral (37300) <sup>b.</sup>	6.9	11.4	18.3
	Semi-Desert Chaparral (37400) <sup>b</sup>	10.4	20.7	31.1
	Scrub and Chaparral Subtotal <sup>c</sup>	36.5	76.1	112.6
Grasslands, Vernal Pools, Meadows, and other Herb Communities (40000)		0.6	3.1	3.7
Grasslands, Vernal I	Pools, Meadows, and other Herb Communities Subtotal <sup>c</sup>	0.6	3.1	3.7
Bog and Marsh (50000)	Emergent Wetland (52440)b	0	0.2	0.2
	Bog and Marsh Subtotal <sup>c</sup>	0	0.2	0.2
Riparian and Bottomland Habitat (60000)	Southern Arroyo Willow Riparian Forest (61320) <sup>b</sup>	0.2	0.2	0.4
	Riparian and Bottomland Habitat Subtotal <sup>c</sup>	0.2	0.2	0.4
Woodland (70000)	Coast Live Oak Woodland (71160)b	0.9	4.5	5.4
	Open Coast Live Oak Woodland (71161) <sup>b</sup>	0	0.1	0.1
	Woodland Subtotal <sup>c</sup>	0.9	4.6	5.6

Table 5-1
Permanent and Temporary Impacts to Vegetation Communities and Land Cover Types
within the Boulder Brush Facilities

General Vegetation Community/Land Cover Category	Vegetation Type (Holland/Oberbauer Code <sup>a</sup> )	Permanent Impacts (Acres)	Temporary Impacts (Acres)	Total Impacts (Acres)
Waters of the United States/State	Unvegetated Stream Channel	0.1	0.3	0.4
	Waters of the United States/State Subtotal	0.1	0.3	0.4
	Total <sup>c</sup>	43.9	87.3	130.9
	Oak Root Zoned	2.0	5.3	7.3

- a Holland (1986) as modified by Oberbauer et al. (2008).
- b Considered special status by the County (County of San Diego 2010a).
- <sup>c</sup> Totals may not sum due to rounding.
- d The Oak Root Zone is an overlay and does not count toward the overall acreage total.

The significance determination of these potential impacts is presented in Section 7.2.1 of this Report.

#### 5.1.1.2 Indirect Impacts to Riparian Habitat or Sensitive Vegetation Communities

#### **Temporary Indirect Impacts**

**Impact V-3:** Temporary Indirect Impacts to Sensitive Vegetation Communities within the Boulder Brush Corridor

Temporary indirect impacts to sensitive vegetation communities outside of the Boulder Brush Facilities development footprint could primarily result from construction activities (**Impact V-3**). 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): increased human access, increased predation or competition from domestic animals, 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 all the sensitive vegetation communities 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 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 following 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 conditionscan influence the photosynthetic rate and also strongly impacts the development of defence 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<sup>6</sup>; 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.

The significance determination of these potential impact is presented in Section 7.2.4 of this Report.

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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.

#### **Permanent Indirect Impacts**

Impact V-4: Permanent Indirect Impacts to Sensitive Vegetation Communities within the Boulder Brush Corridor

Permanent (operation-related) indirect impacts could result from the proximity of the Boulder Brush Facilities to sensitive vegetation communities after construction, including impacts related to operation and maintenance (**Impact V-4**). Operation and maintenance activities would occur within the development footprint. 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): increased human access, increased predation or competition from domestic animals, 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. 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 activites; therefore, this indirect impact is not addressed in following 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 defence traits in plants (Yamawo and Hada 2010). Lighting would conform to County of San Diego 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 in Section 5.1.1, Direct Impacts to Riparian Habitat or Sensitive Vegetation Communities.

**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 plant species within 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 in Section 5.1.1. 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.

The significance determination of these potential impacts is presented in Section 7.2.4 of this Report.

#### 5.1.2 Campo Wind Facilities

#### 5.1.2.1 Direct Impacts to Riparian Habitat or Sensitive Vegetation Communities

#### **Temporary Direct Impacts**

For purposes of this analysis, all impacts associated with the Campo Wind Facilities are considered permanent direct impacts.

#### **Permanent Direct Impacts**

**Impact V-A:** Permanent Direct Impacts to Sensitive Vegetation Communities within the Campo Corridor

There are direct impacts to vegetation communities and land covers as a result of the result of grading for the installation of turbines, access roads, the collector substation, O&M facility, and other associated Campo Wind Facilities components. Table 5-2 quantifies the impacts to the vegetation communities and land covers. Figure 5-2 series show these impacts.



The significance determination of these potential impacts is presented in Section 7.2.1 of this Report.

Table 5-2
Impacts to Vegetation Communities and Land Cover Types – Campo Corridor

General Vegetation Community/ Land Cover Category	Vegetation Type (Holland/Oberbauer Code)	Total (Acres)
Bog and Marsh (50000)	Emergent wetland	0.32
	Bog and Marsh (50000) Total	0.32
Disturbed and Developed Areas (10000)	Developed	3.56
	Disturbed habitat	45.24
	Disturbed and Developed Areas (10000) Total	48.80
Grasslands, Vernal Pools, Meadows, and other	Non-native grassland	21.23
Herb Communities (40000)	Non-native grassland broadleaf-dominated	0.20
	Valley Sacaton grassland	0.22
Grasslands, Vernal Pools	, Meadows, and other Herb Communities (40000) Total	21.65
Riparian and Bottomland Habitat (60000)	Mulefat scrub	0.05
	Southern coast live oak riparian forest	0.85
	Southern willow scrub	0.18
	Riparian and Bottomland Habitat (60000) Total	1.08
Scrub and Chaparral (30000)	Big sagebrush scrub	30.42
	Granitic chamise chaparral	458.44
	Granitic northern mixed chaparral	92.97
	Montane buckwheat scrub	47.19
	Red shank chaparral	39.51
	Scrub oak chaparral	15.48
	Upper Sonoran subshrub scrub	10.59
	Scrub and Chaparral (30000) Total	694.59
Woodland (70000)	Coast live oak woodland	18.79
	Dense Coast live oak woodland	1.35
	Open Coast live oak woodland	1.41
	Woodland (70000) Total	21.55
Unvegetated Stream Channel	Unvegetated Stream Channel	1.25
	Unvegetated Stream Channel Subtotal	1.25
	Total	789.25

#### 5.1.2.2 Indirect Impacts to Riparian Habitat or Sensitive Vegetation Communities

#### **Temporary Indirect Impacts**

**Impact V-B:** Temporary Indirect Impacts to Sensitive Vegetation Communities within the Campo Corridor

Temporary (construction-related) indirect impacts from grading and other construction activities to vegetation communities outside of the limits of grading for Campo Wind Facilities are similar to those described above for Boulder Brush Facilities and 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. The standard best management practices (BMPs) described in Table 5-3 minimize some of these potential impacts, such as keeping equipment free of leaks, using trash abatement to reduce attraction of predators, minimizing wildfires from construction-related activities, avoiding working in heavy rains, and establishing speed limits to reduce dust from equipment and vehicles.

Table 5-3
Standard Best Management Practices

Project Action	General Description
Equipment Maintenance	All equipment operating on site would be in good working condition and free of leaks.
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.

Table 5-3
Standard Best Management Practices

Project Action	General Description
Work Hours	Construction should occur during the daytime only, and no construction should take place at night. <sup>1</sup> "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.

#### Note:

The significance determination of these potential impacts is presented in Section 7.2.4 of this Report.

#### **Permanent Indirect Impacts**

**Impact V-C:** Permanent Indirect Impacts to Sensitive Vegetation Communities within the Campo Corridor

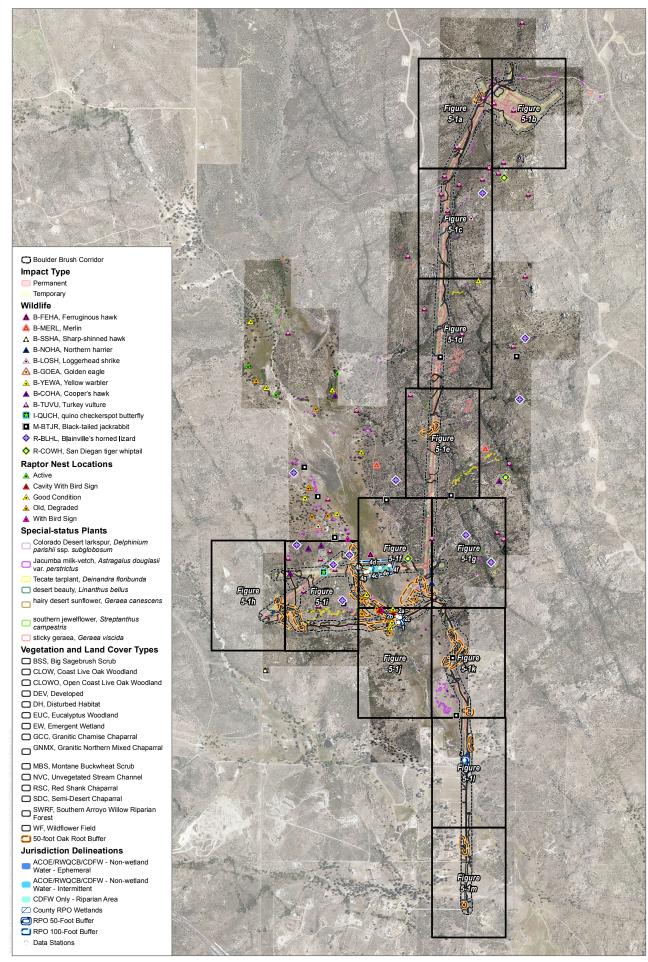
Permanent (operation-related) indirect impacts for Campo Wind Facilities are similar to those described above for Boulder Brush Facilities and could result from the proximity of the Project to vegetation communities after construction, including impacts related to O&M. O&M activities would occur within the limits of grading; indirect impacts to vegetation communities could occur from increased human access, introduction of pests or exotic species, altering natural drainage, increasing noise and/or nighttime lighting, chemical pollutants if used for operation-related activities, and alteration of the natural fire regime. The standard BMPs described in Table 5-3, above, minimize some of these potential impacts, such as speed limits to reduce dust from vehicles and trash abatement to reduce attraction of predators.

The significance determination of these potential impacts is presented in Section 7.2.4 of this Report.

<sup>1</sup> 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.

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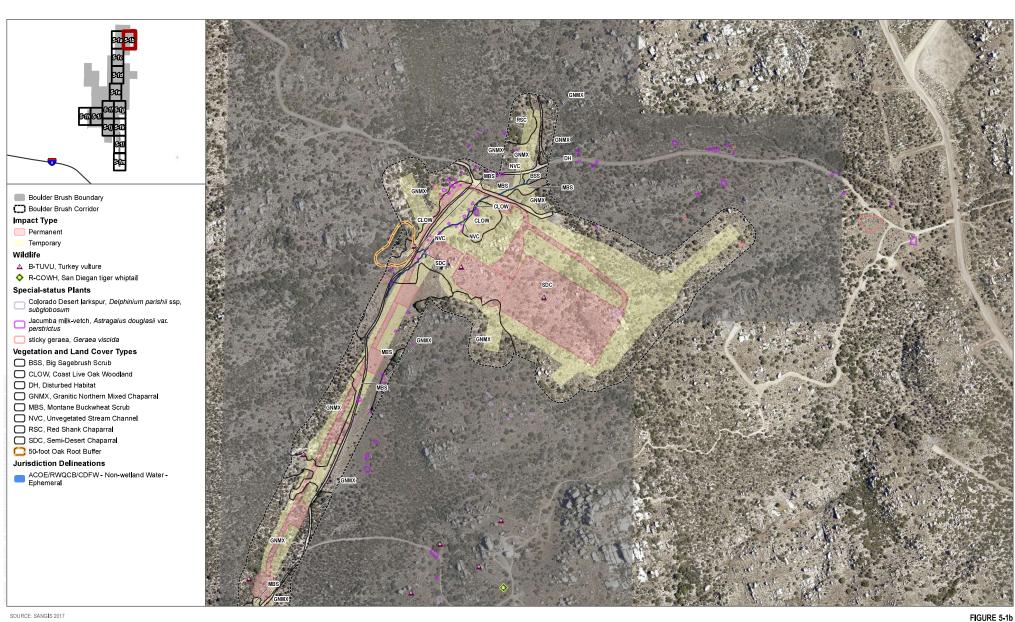


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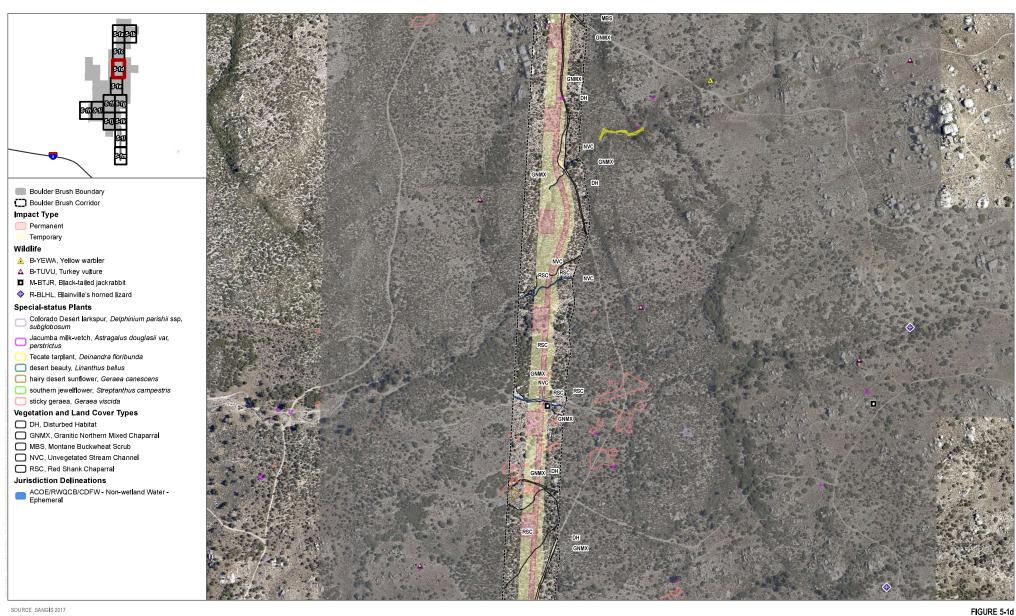




Impacts to Biological Resources - Boulder Brush Corridor

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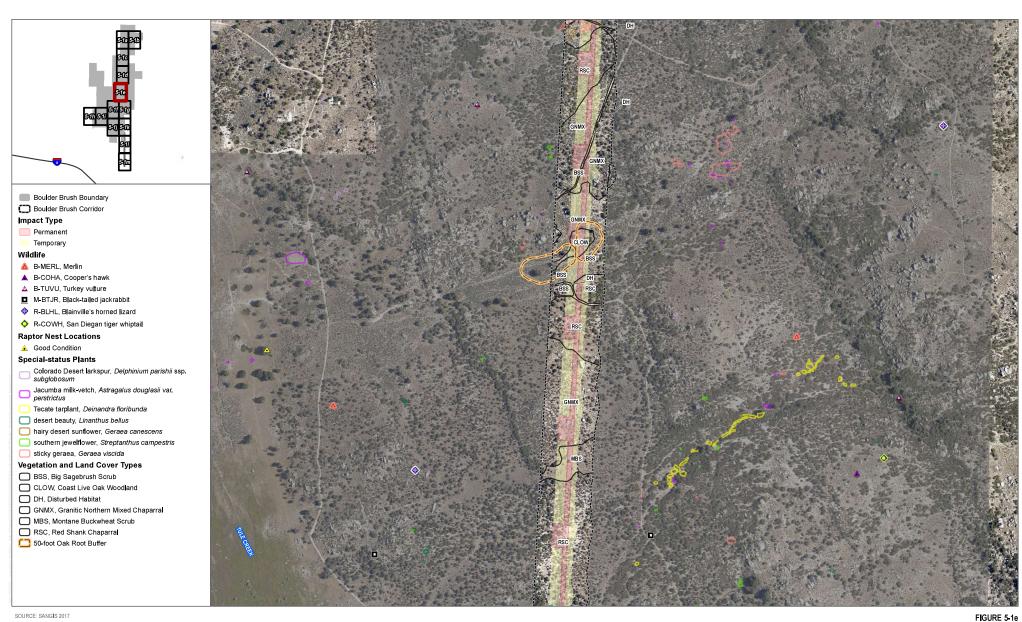
















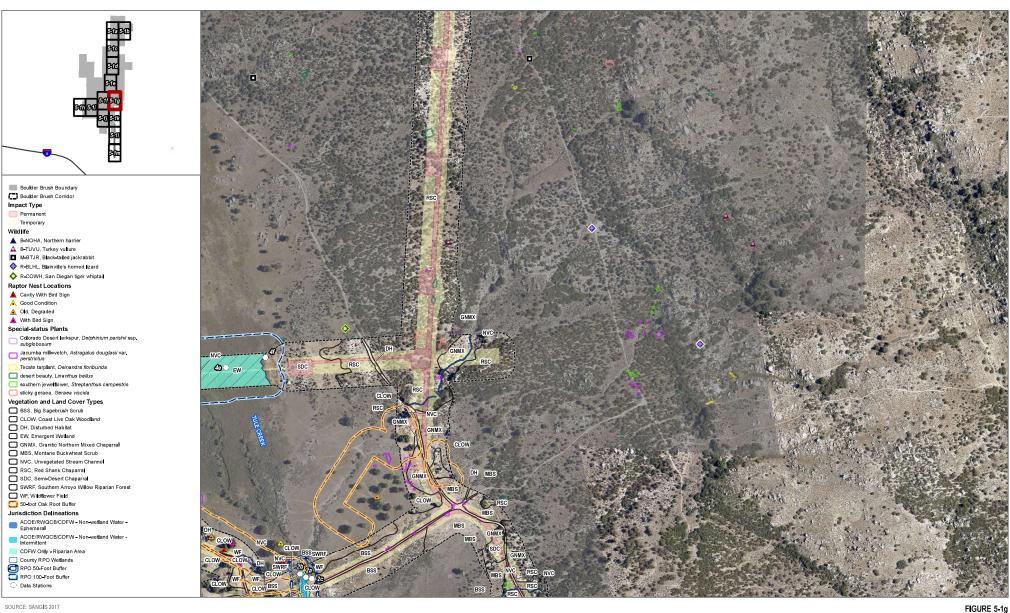




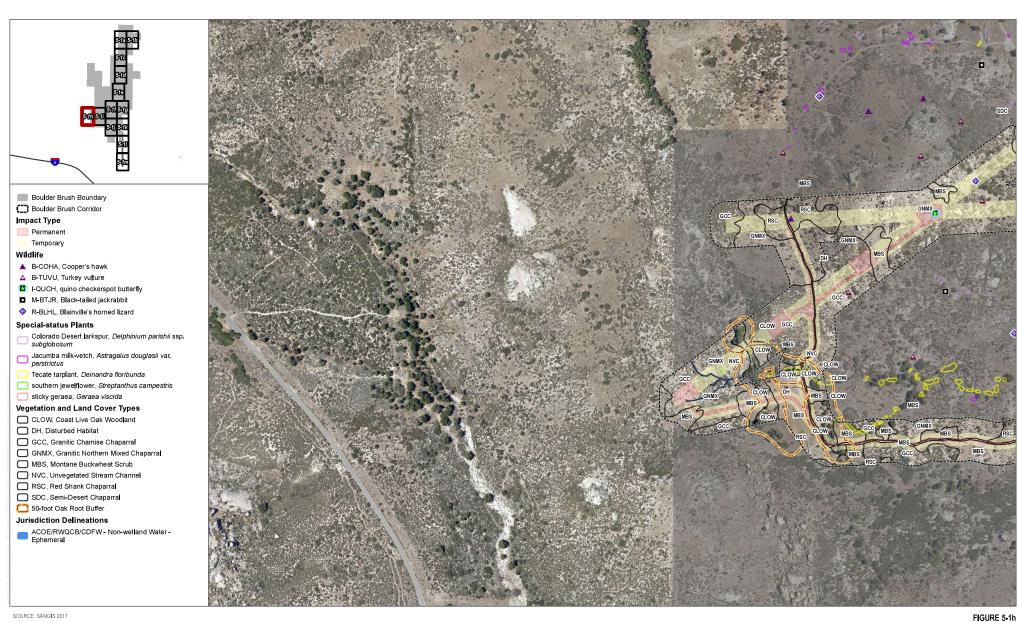
Impacts to Biological Resources - Boulder Brush Corridor

FIGURE 5-1f



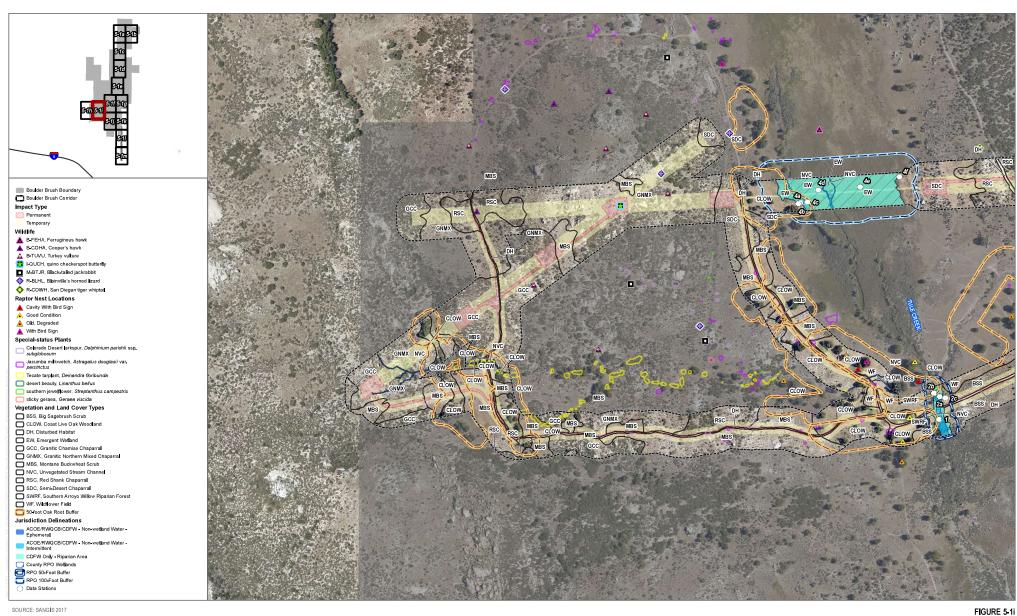










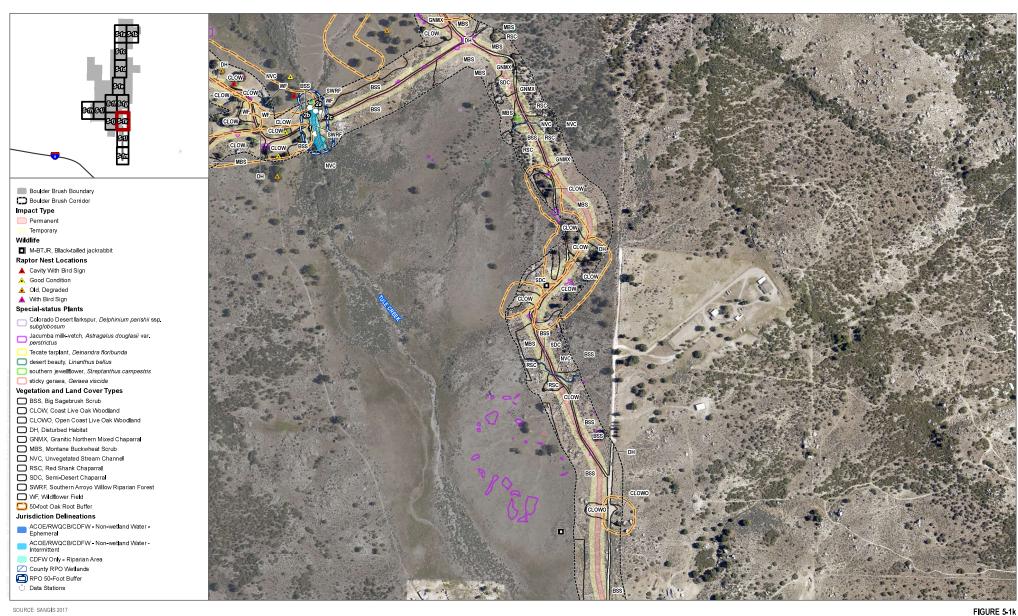








Impacts to Biological Resources - Boulder Brush Corridor



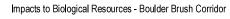






FIGURE 5-11

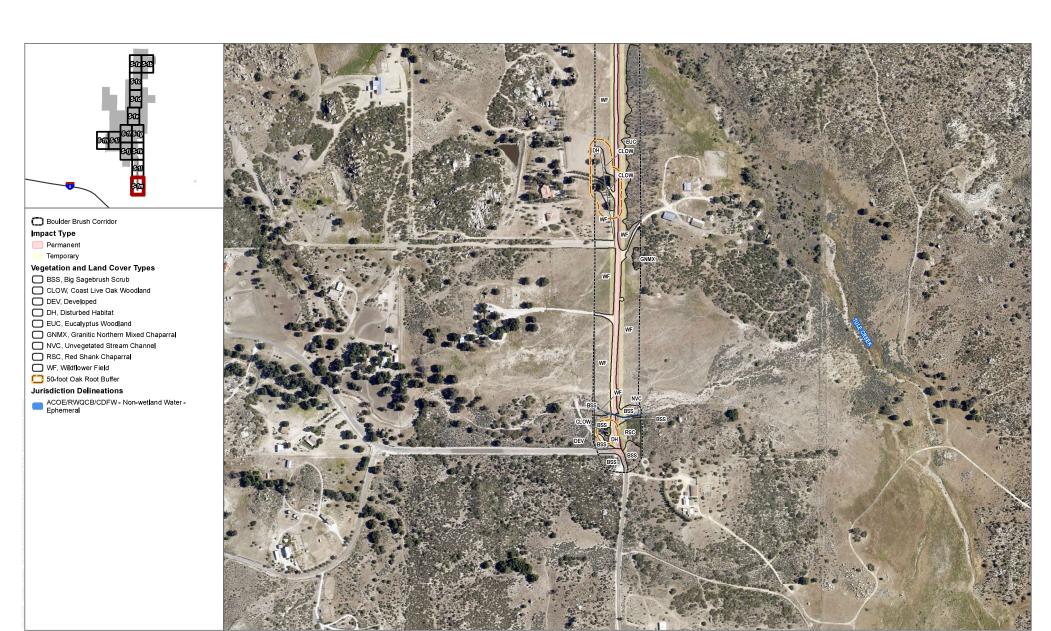
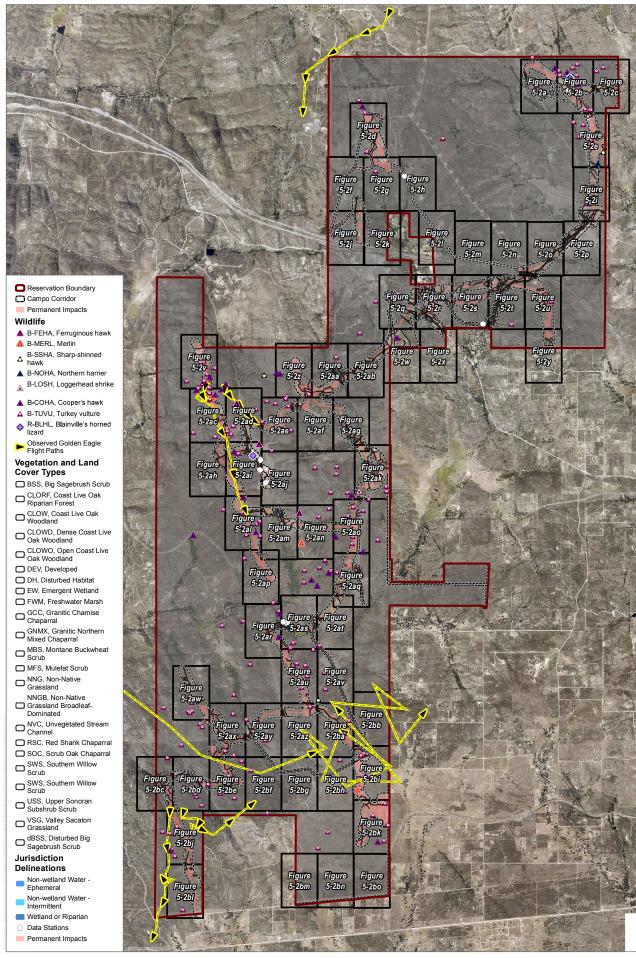




FIGURE 5-1m





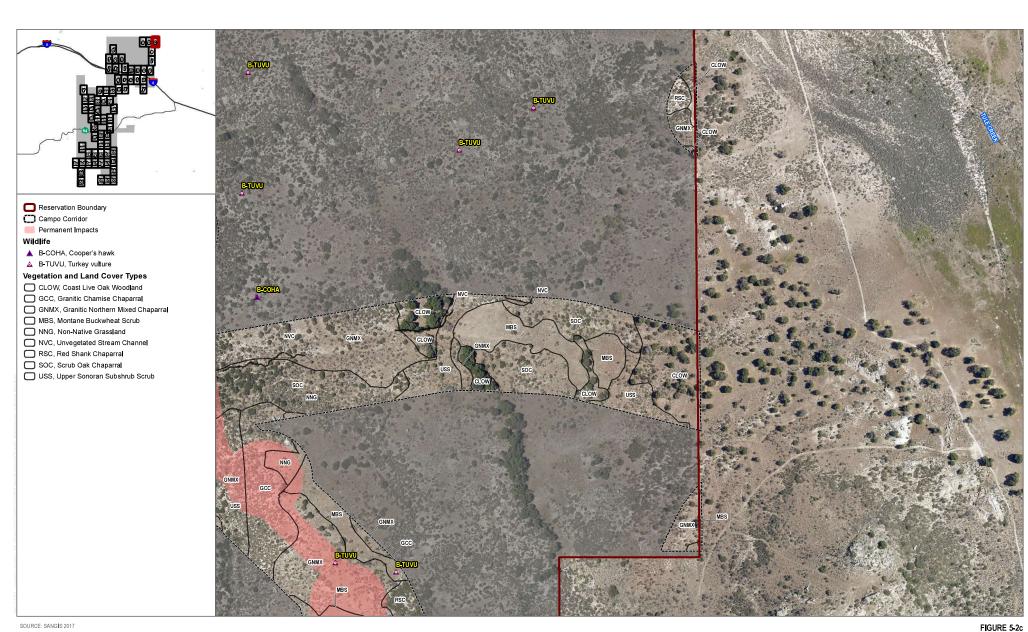










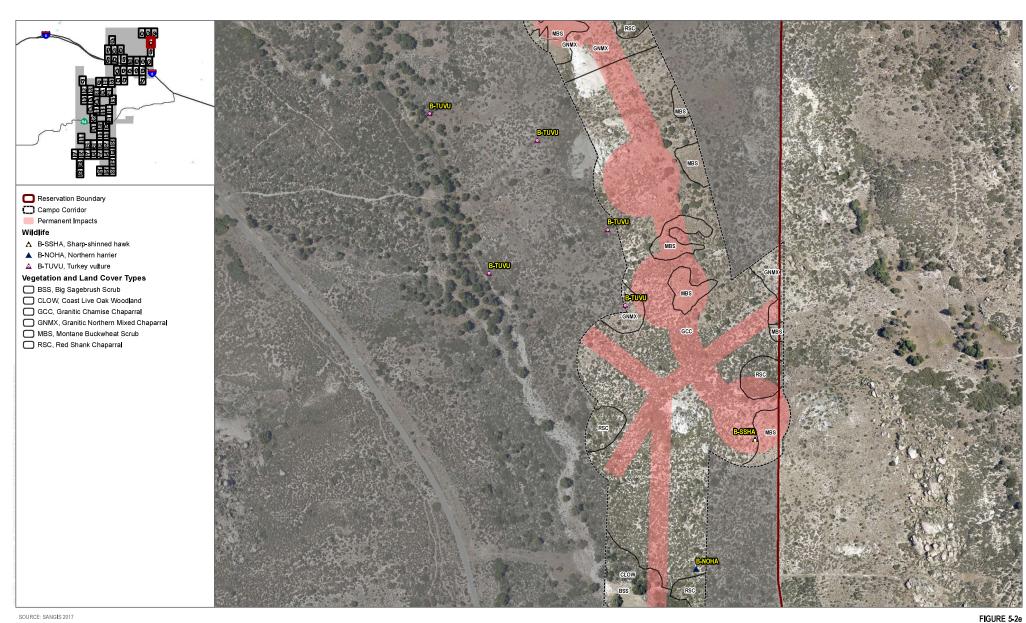






























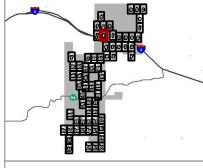












Reservation Boundary
Campo Corridor

Permanent Impacts

Vegetation and Land Cover Types

DH, Disturbed Habitat
GCC, Granitic Chamise Chaparral



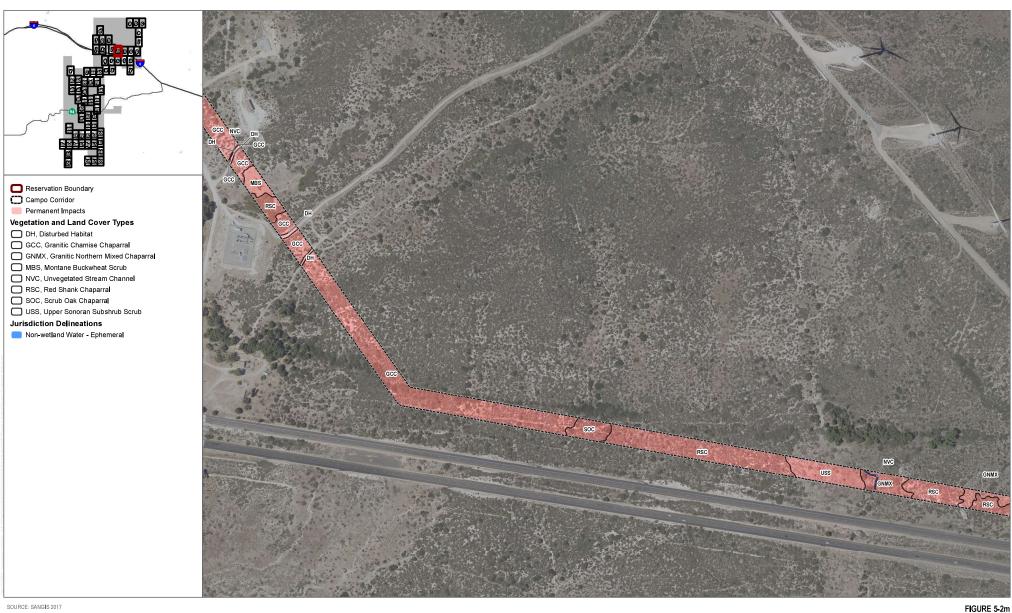








FIGURE 5-2























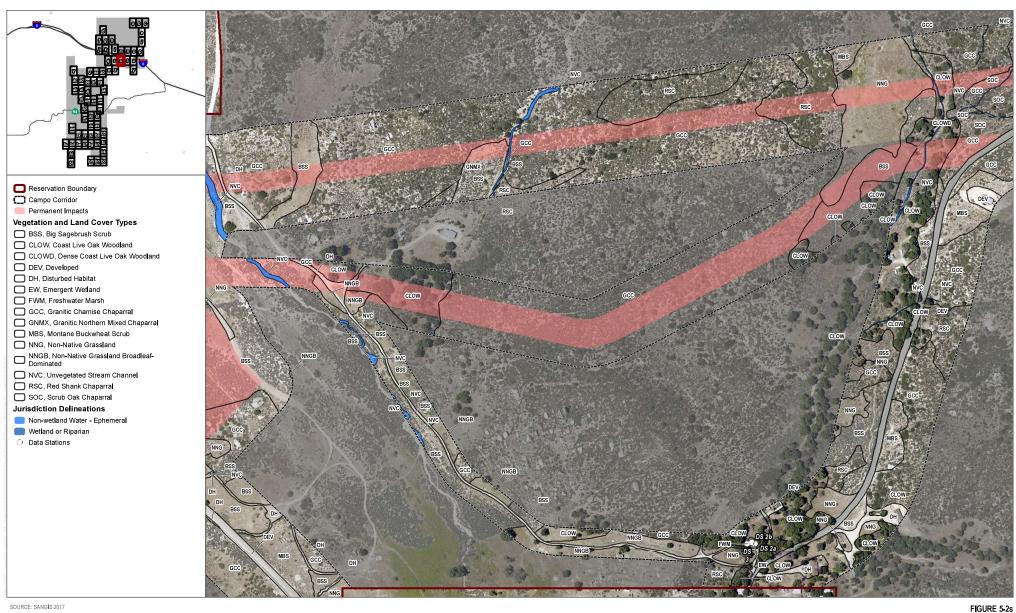






























Impacts to Biological Resources - Reservation

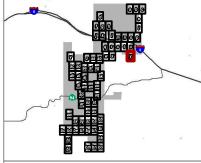












Reservation Boundary
Campo Corridor

Permanent Impacts

## Vegetation and Land Cover Types

GCC, Granitic Chamise Chaparral
MBS, Montane Buckwheat Scrub













FIGURE 5-2z





































FIGURE 5-2af













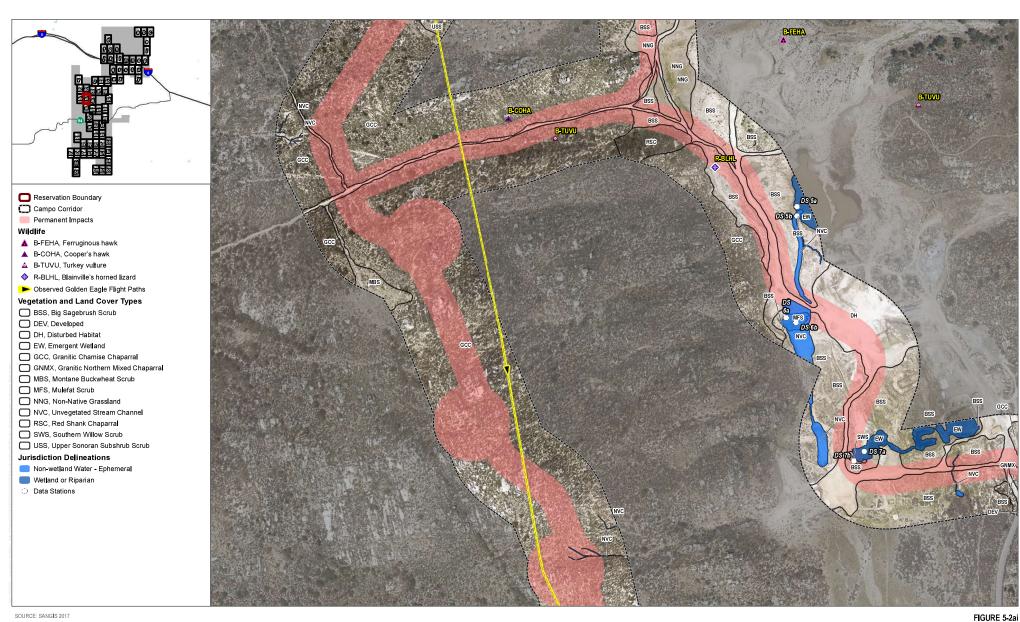










FIGURE 5-2aj

























Reservation Boundary
Campo Corridor

Permanent Impacts

### Wildlife

▲ B-COHA, Cooper's hawk

▲ B-TUVU, Turkey vulture

### Vegetation and Land Cover Types

CLOW, Coast Live Oak Woodland

DH, Disturbed Habitat GCC, Granitic Chamise Chaparral

MBS, Montane Buckwheat Scrub

NVC, Unvegetated Stream Channel

SOC, Scrub Oak Chaparral



































































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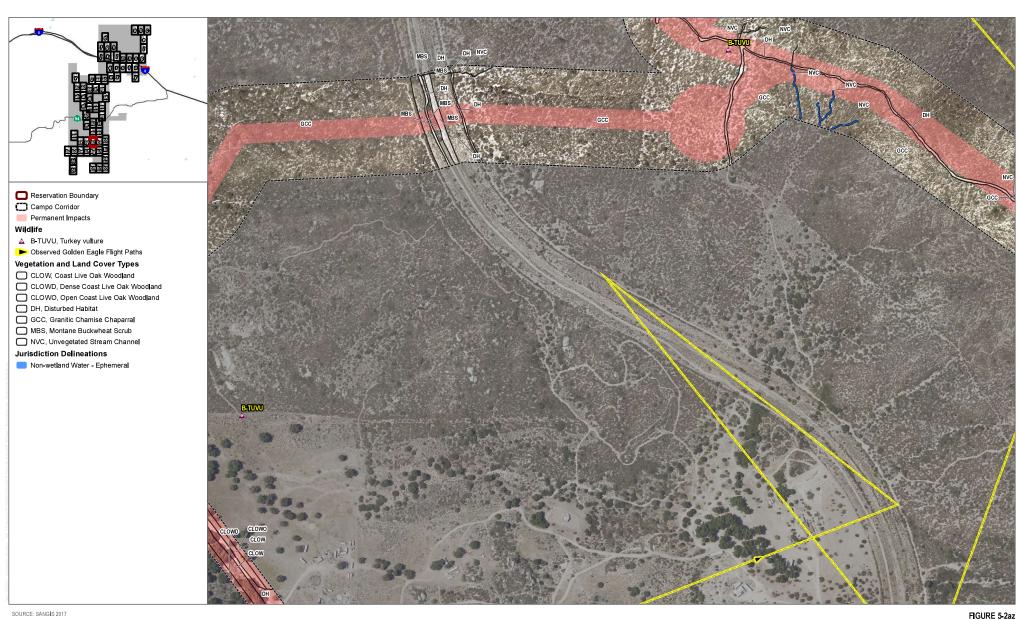








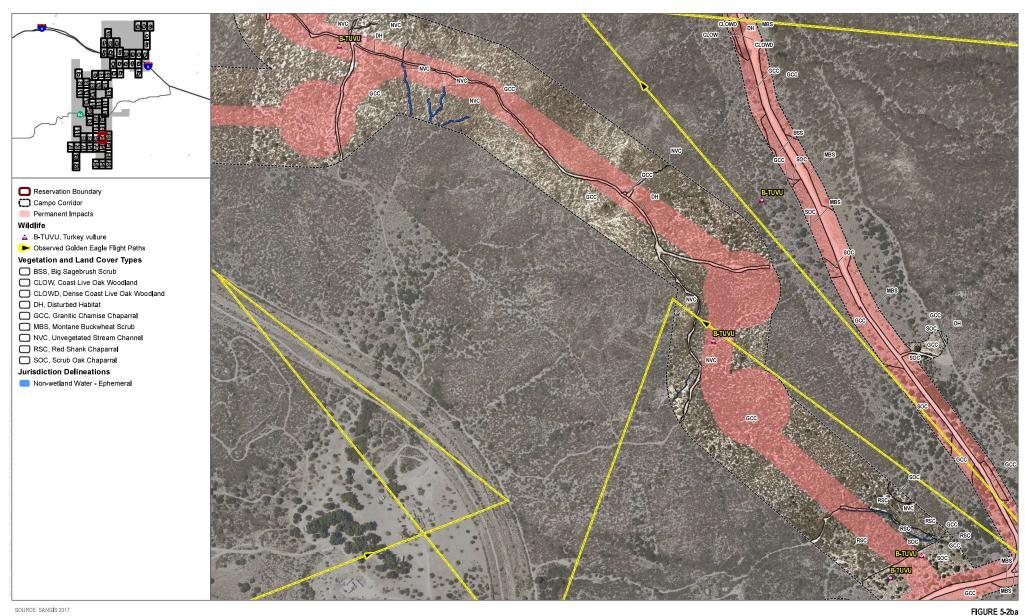




























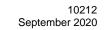


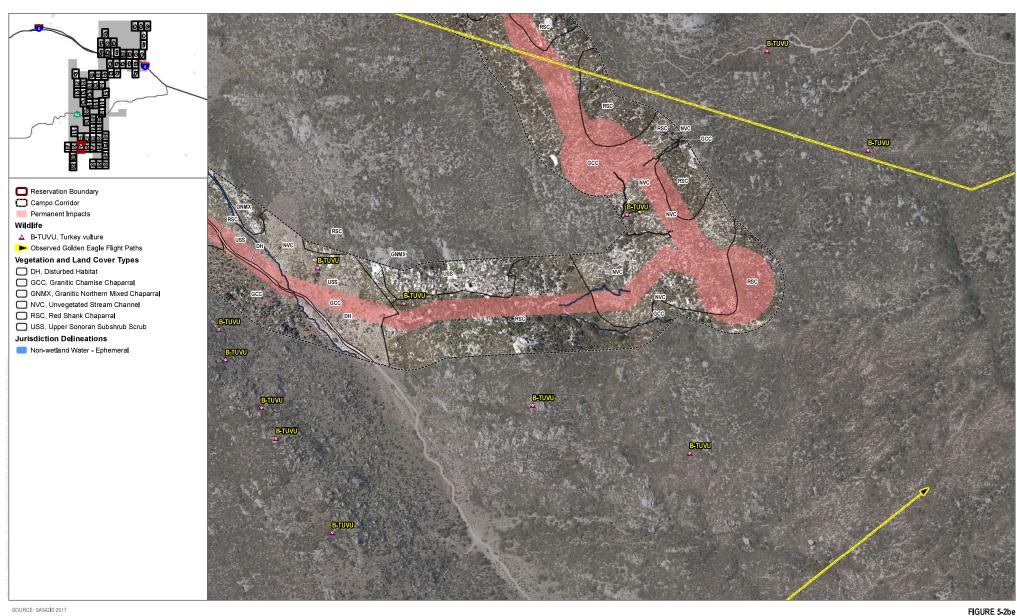








































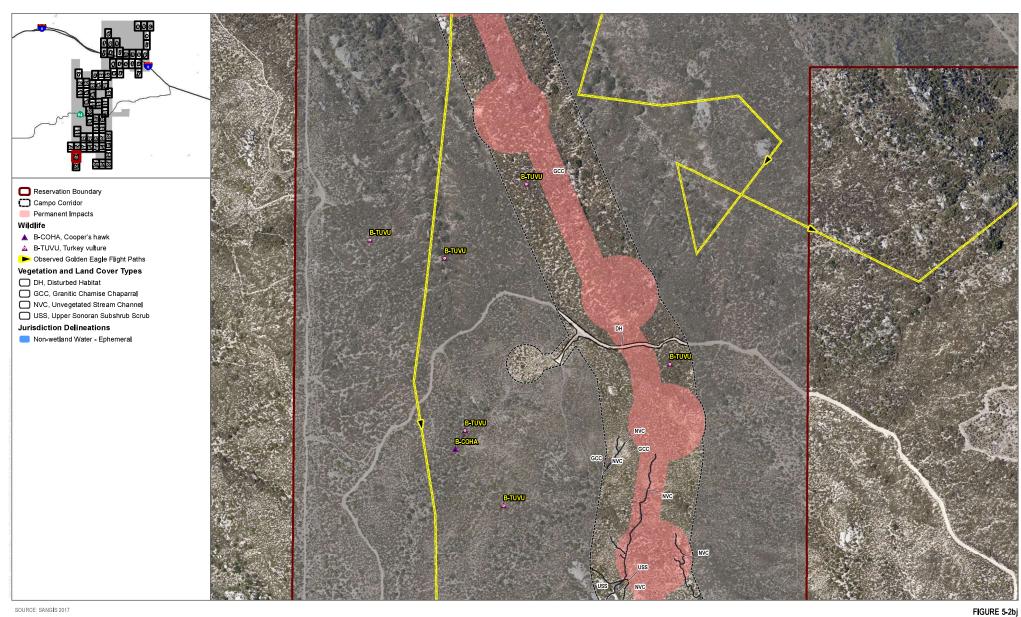










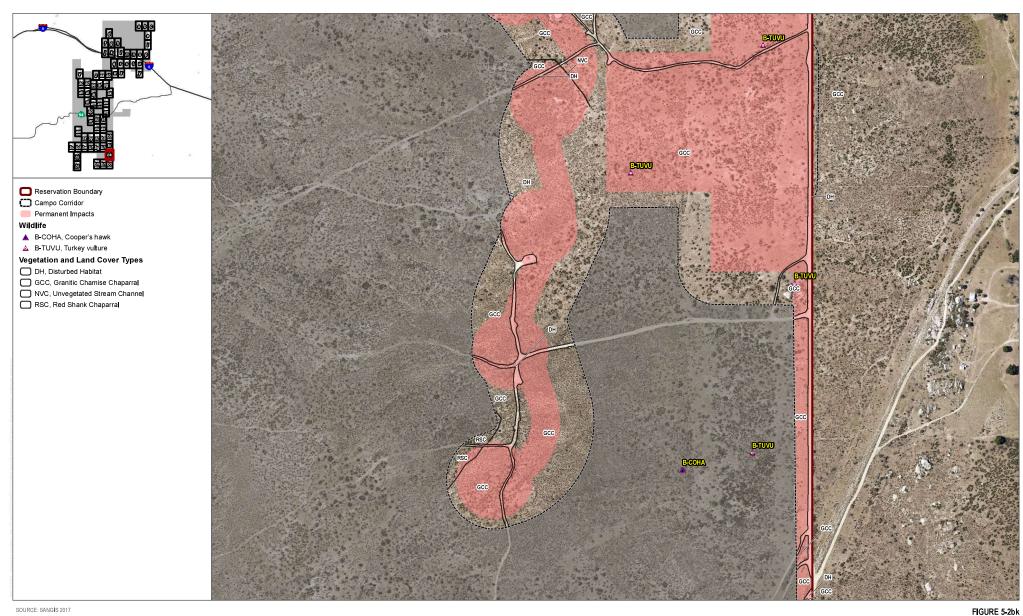


SOURCE: SANGIS 2017









SOURCE: SANGIS 2017









SOURCE: SANGIS 2017







SOURCE: SANGIS 2017







- Reservation Boundary
  Campo Corridor
- Permanent Impacts

#### Vegetation and Land Cover Types

- DH, Disturbed Habitat
  GCC, Granitic Chamise Chaparral



SOURCE: SANGIS 2017









Reservation Boundary
Campo Corridor

Permanent Impacts

Vegetation and Land Cover Types

DH, Disturbed Habitat
GCC, Granitic Chamise Chaparral

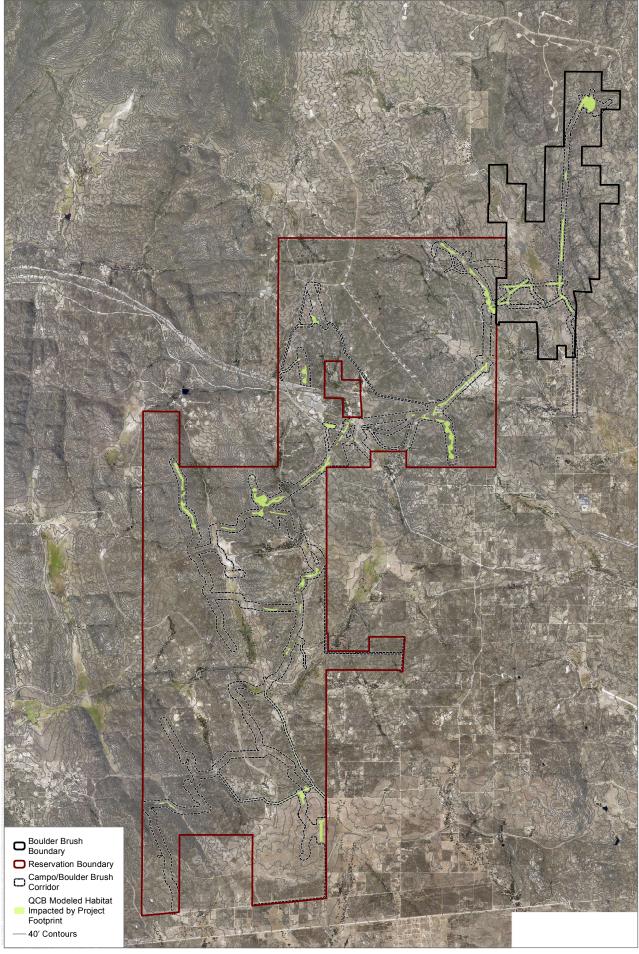


SOURCE: SANGIS 2017











### 5.2 Special-Status Plant Species

#### 5.2.1 Boulder Brush Facilities

The significance of these potential impacts to special-status species is determined through application of the County's Significance Guidelines, as described in Section 6.1, Guidelines for the Determination of Significance.

#### **Direct Impacts to Special-Status Plant Species**

### **Temporary Direct Impacts**

#### **Impact SP-1:** Temporary Direct Impacts to Special-Status Plant Species

Temporary impacts to special-status plants resulting from construction are quantified as permanent impacts (see Section 5.2.1.2, Permanent Direct Impacts). Additionally, temporary direct impacts to special-status plants at the edge of the development footprint could primarily result from construction activities. Clearing, trampling, or grading of special-status plants outside designated Boulder Brush Facilities disturbance limits (or development 'footprint') could occur in the absence of avoidance and mitigation measures. These potential temporary direct impacts could damage individual plants and alter their ecosystem, creating gaps in vegetation that allow exotic, nonnative plant species to become established, thus increasing soil compaction and leading to soil erosion. Any special-status plant species at the edge of the development footprint could be impacted by potential temporary direct impacts, such as those previously listed.

The significance determination for these potential impacts is presented in Section 6.2.2 of this Report.

#### Permanent Direct Impacts

#### **Impact SP-2**: Permanent Direct Impacts to Special-Status Plant Species

The Boulder Brush Facilities would result in the loss of sensitive plant species (Table 5-4, Summary of Direct Impacts to Special-Status Plant Species) (**Impact SP-2**). Special-status plant surveys were conducted in 2017 and 2018 (see Section 3.3.1) and results are described in Section 4.5.1. Permanent direct impacts to special-status plant species were quantified by comparing the development footprint with the occurrence data for each special-status plant species. Table 5-4 includes each species' status, estimates of the number of individuals within the Boulder Brush Corridor, and an assessment of permanent direct impacts based on the number of individual plants



located within the development footprint. For the areas outside of the 2017/2018 survey area, rare plant surveys will be conducted within approximately 2.63 acres of previously un-surveyed areas within the Boulder Brush Facilities during the appropriate seasons in 2020. The Boulder Brush Corridor does not contain any critical habitat for plant species.

The significance determination for these potential impacts is presented in Section 6.2.2 of this Report.

Table 5-4
Summary of Direct Impacts to Special-Status Plants Species – 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	255	111					
Southern jewelflower (Streptanthus campestris)	None/None/CRPR 1B.3	30	20					
Tecate tarplant (Deinandra floribunda)	None/None/CRPR 1B.2	3,029	61					
	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					

#### **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)

#### **Indirect Impacts to Special-Status Plant Species**

#### **Temporary Indirect Impacts**

**Impact SP-3:** Temporary Indirect Impacts to Special-Status Plant Species

The temporary indirect impacts to vegetation communities described in Section 5.1.1.2, Indirect Impacts to Riparian Habitat or Sensitive Vegetation Communities, can also affect sensitive plants. The indirect impacts analyzed in Section 5.1.1.2 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 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 special-status plant species. Special-status plant species at the edge of the Boulder Brush Facilities development footprint could be impacted by potential temporary indirect impacts such as those listed in Section 5.1.1.2 (Impact SP-3).

The significance determination for these potential impacts is presented in Section 7.2.1 of this Report.

#### Permanent Indirect Impacts

#### **Impact SP-4:** Permanent Indirect Impacts to Special-Status Plant Species

The permanent indirect impacts to vegetation communities described in Section 5.1.1.2, Indirect Impacts to Riparian Habitat or Sensitive Vegetation Communities, can also affect sensitive plants. Permanent indirect impacts could result from the proximity of the development footprint to special-status plants outside of the Boulder Brush Facilities development footprint after construction. The indirect impacts analyzed in Section 5.1.1.2 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 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 special-status plant species. Special-status plant species at the edge of the development footprint could be impacted by permanent indirect impacts such as those previously listed in Section 5.1.1.2 (Impact SP-4).

The significance determination for these potential impacts is presented in Section 7.2.1 of this Report.

### 5.2.2 Campo Wind Facilities

#### **Direct Impacts to Special-Status Plant Species**

### Temporary Direct Impacts

For purposes of this analysis, all impacts associated with the Campo Wind Facilities are considered permanent direct impacts.

#### Permanent Direct Impacts

### **Impact SP-A**: Permanent Direct Impacts to Special-Status Plant Species

The Campo Wind Facilities would likely result in the loss 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. The following species have been observed in the Project Area or have a high potential to occur and therefore are subject to potential direct impacts: Tecate cypress (List A), Tecate tarplant (List A), Jacumba milk-vetch (List A), sticky geraea (List B), desert beauty (List B), southern jewelflower (List A), Payson's jewelflower (List D), Peninsular spineflower (List D), Colorado desert larkspur (List D), pride-of-California (List D) (Impact SP-A). The Campo Corridor does not contain any critical habitat for plant species.

The significance determination for these potential impacts is presented in Section 6.2.2 of this Report.

#### **Indirect Impacts to Special-Status Plant Species**

#### **Temporary Indirect Impacts**

### **Impact SP-B:** Temporary Indirect Impacts to Special-Status Plant Species

Most of the indirect impacts to vegetation communities described in Section 5.1.1.2, Indirect Impacts to Riparian Habitat or Sensitive Vegetation Communities, can also affect sensitive plants. Potential temporary indirect impacts to special-status plant species in the Campo Corridor would primarily result from construction activities and would include impacts related to or resulting from the 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 (**Impact SP-B**). Special-status plant species at the edge of the development footprint could be impacted by potential temporary indirect impacts such as those previously listed (**Impact SP-B**) (see descriptions in Section 5.1.1.2).



Standard BMPs would be implemented during construction, O&M, and decommissioning of the Project that would reduce temporary indirect impacts to special-status plants. Table 5-3 above outlines BMPs relevant for avoidance and minimization of impacts to biological resources. The significance of these potential impacts is determined through application of the County's Significance Guidelines, as described in Section 6.1.

### Permanent Indirect Impacts

**Impact SP-C:** Permanent Indirect Impacts to Special-Status Plant Species

Most of the indirect impacts to vegetation communities described in Section 5.1.1.2, Indirect Impacts to Riparian Habitat or Sensitive Vegetation Communities, can also affect sensitive plants. Permanent indirect impacts could result from the proximity of the development footprint to special-status plants outside of the development footprint after construction. Permanent indirect impacts that could affect special-status plant species 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 (Impact SP-C). Each of these potential indirect impacts is discussed in Section 6.2.2, Special-Status Plant Species. Special-status plant species at the edge of the development footprint could be impacted by permanent indirect impacts such as those previously listed (Impact SP-C) (see descriptions in Section 5.1.1.2).

Standard best management practices (BMPs) would be implemented during construction, O&M, and decommissioning of the Project that would reduce permanent indirect impacts to special-status plants. Table 5-3 above outlines BMPs relevant for avoidance and minimization of impacts to biological resources.

### 5.3 Sensitive Wildlife Species

#### 5.3.1 Boulder Brush Facilities

The significance of these potential impacts to sensitive wildlife species is determined through application of the County's Significance Guidelines, as described in Section 6.1 of this report.

#### **Direct Impacts to Special-Status Wildlife Species**

**Temporary Direct Impacts** 

**Impact W-1:** Temporary Direct Impacts to Habitat for Special-Status Wildlife Species



There would be temporary direct impacts to suitable habitat for special-status wildlife species, including foraging habitat for raptors, associated with the development footprint of the Boulder Brush Facilities (Table 5-1). Although these areas would be revegetated after Boulder Brush Facilities construction, for mitigation purposes, these impacts to suitable habitat are considered permanent. Additionally, construction-related, temporary direct impacts to avian foraging and wildlife access to foraging, nesting, or water resources would primarily result from clearing, trampling, or grading of vegetation communities outside of the development footprint in the absence of avoidance and mitigation measures (**Impact W-1**). These potential impacts could reduce suitable habitat for wildlife species and alter their ecosystem, thus creating gaps in vegetation that allow exotic, non-native plant species to become established.

The significance determination for these potential impacts is described in Section 6.2.2 of this Report.

#### Permanent Direct Impacts

**Impact W-2:** Permanent Direct Impacts to Habitat for Special-Status Wildlife Species

Permanent direct impacts to special-status wildlife species were quantified by comparing the development footprint with suitable habitat for wildlife species observed or those that have a high potential to occur within the Boulder Brush Corridor. Implementation of the Boulder Brush Facilities would result in the direct loss of habitat, including foraging habitat, for some of the County of San Diego Group 1 and Group 2 species and SSCs described in Section 4.6.1 (Impact W-2). Table 5-5 outlines impacts to suitable habitat for County Group 1 and/or SSC species that are known to occur within the Boulder Brush Corridor or immediately surrounding area and those with a high potential to occur. Group 2 special-status wildlife species, that are not state SSC animals, are not included in the table as loss of habitat for these species from development of the Boulder Brush Facilities would be less than significant. 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 in the region.

Locations of special-status wildlife observed are shown in the Figure 5-1 series, and described in Sections 4.6.1.

The significance determination of these potential impacts is presented in Section 6.2.2 of this Report.

Impact W-3 and W-4: Permanent Direct Impacts to Special-Status Wildlife Species

**Impact W-3:** Impacts to Active Nests



If any active nests or the young of nesting special-status bird species are impacted through direct grading, these impacts would be considered significant, absent mitigation (**Impact W-3**). O&M during the life of the Project is not expected to affect the nesting opportunities of birds.

Golden Eagle. 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 Boulder Brush Facilities would be located in the vicinity of existing wind turbines, which would likely deter golden eagle from utilizing portions of the Boulder Brush Corridor. Madders (2009) 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 constraining the eagles from occupying nests within their existing territory. However, as described in Section 4.6.1.1, there are no suitable large trees or cliffs present for nesting within the Boulder Brush Corridor; therefore, this species is not expected to nest on site. Based on the low frequency golden eagles appear to fly over the site, 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.

There are no golden eagle nests within the Boulder Brush Corridor, nor within 4,000 feet of the development footprint of the Boulder Brush Facilities. The nearest active golden eagle nest (e.g., nesting behavior documented) to the development footprint is approximately 5.5 miles east of the Project Site 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). 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, October/November 2018) and weekly 30-minute point counts (September 2017 through September 2019) did not record any golden eagles, indicating that this species does not occur in the Boulder Brush Corridor with much frequency. Therefore, construction and implementation of the Boulder Brush Facilities would not result in direct permanent impacts to golden eagle nests, given the distance between nest sites and the development footprint.

The significance determination of these potential impacts is presented in Section 6.2.2 of this Report.

#### **Impact W-4** Impacts to Wildlife Species from Collisions and Electrocution

All electrical transmission would be overhead connecting to the proposed high-voltage substation and ultimately to the Sunrise Powerlink transmission line. The utility poles would provide perches from which avian species may forage, thereby increasing the potential risk of fatality associated with collisions and electrocutions and resulting in a potentially significant impact (**Impact W-4**).

*Bats.* The abundance of bats within the Boulder Brush Corridor is low (IA range of 215-855), particularly when compared to other areas with higher quality habitat types in the region, such as



the Virgin River sample area (IA of 46,583) and the Las Vegas Wash sample area (IA range of 28,594 to 168,428) (O'Farrell 2006a and 2006b).

Therefore, the overall magnitude of bat usage within the Boulder Brush Corridor is significantly less than any locations studied that contain attractant features (see Section 4.4.3, Mammals). This suggests that the risk for bat electrocution with Boulder Brush Facilities is low when taking into account the overall low abundance of bats in the area (see Table 4-2). The acoustical bat results indicate that the activity of the higher microphone (which captures bats that tend to fly higher), was lower when compared to the lower microphone. However, high-flying species such as hoary bat and Mexican free-tailed bat were detected with relatively low IAs. These species are known to fly at heights of 10 to 20 feet above ground and up to approximately 3,200 feet above ground (McCracken 1996). For reference, the gen-tie line polls would be up to 150 feet in height, and the tallest component of the high-voltage substation and switchyard would approximately 130 feet in height; however, the majority of the equipment associated with the high-voltage substation and switchyard would not exceed 35 feet in height. Although, due to the low activity index for both species, and all bat species in the Boulder Brush Corridor, it can be concluded that the potential effects of the Boulder Brush Facilities on the meta-community of bats in the region, would be negligible.

All of the structures within the Boulder Brush Corridor would be static and since bats use echolocation to identify and avoid objects, it is unlikely the Boulder Brush Facilities would result in collision or electrocution impacts. Potential impacts from electrocution to individual bats would not result in the greater population of any bat species known to occur on the Boulder Brush Corridor to drop below self-sustaining levels.

Regardless, in order to comply with the USFWS Land-Based Wind Energy Guidelines (see Section 2.1.5), Tier 4 post-construction studies will be conducted in association with the wind components to estimate mortality rates and ensure impacts to individual bats are at a minimum. These studies are part of standard Bird and Bat Conservation Strategy (BBCS) that would be negotiated with the USFWS and direct mortality monitoring of all relenvant components of the project.

Golden Eagle. The USGS biotelemetry data indicates that golden eagle use within the Project Area and the surrounding area is low compared to other areas in San Diego (Tracey et al. 2016, 2017). Figures 4-3a through 4-3n show only two eagles flying through the Project Site between 2015 and 2017. These eagles did not stop on site and the timing of their flight patterns indicate they did not spend more than 15 to 30 minutes flying over the Project Site. 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, therefore the chance for electrocution is low.

The significance determination of these potential impacts is presented in Section 6.2.2 of this Report.



Table 5-5
Permanent Impacts to Group 1 and/or CDFW SSC 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 Study	Biological Cumulative Study Area Habitat Total	Modeled Habitat within the Boulder Brush Corridor	Occurrence and Development Footprint Habitat Total	Significance Determination
		ļ.	Amphibians and Reptiles			
San Diegan tiger whiptail (Aspidoscelis tigris stejnegeri)	USFWS: None CDFW: SSC County: Group 2	<ul> <li>montane buckwheat scrub</li> <li>big sagebrush scrub</li> <li>granitic chamise chaparral</li> <li>granitic northern mixed chaparral</li> <li>red shank chaparral</li> <li>semi-desert chaparral</li> <li>southern mixed chaparral</li> <li>chamise chaparral</li> <li>non-native grassland</li> <li>disturbed habitat</li> <li>wildflower field</li> <li>mulefat scrub</li> <li>alluvial fan scrub</li> <li>desert woodland</li> <li>pine forest</li> <li>sea level to 7,000 ft. amsl (2,130 m amsl)</li> </ul>	There is 435,099 acres of modeled habitat within the biological cumulative study area.	<ul> <li>montane buckwheat scrub</li> <li>big sagebrush scrub</li> <li>granitic chamise chaparral</li> <li>granitic northern mixed chaparral</li> <li>red shank chaparral</li> <li>semi-desert chaparral</li> <li>disturbed habitat</li> <li>wildflower field</li> <li>sea level to 7,000 ft. amsl (2,130 m amsl)</li> </ul>	Observed in the east-central portion of the Boulder Brush Corridor. There is 42.5 acres of modeled habitat within the Boulder Brush Corridor.	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 proposed 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 5-5
Permanent Impacts to Group 1 and/or CDFW SSC 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 Study	Biological Cumulative Study Area Habitat Total	Modeled Habitat within the Boulder Brush Corridor	Occurrence and Development Footprint Habitat Total	Significance Determination
San Diego banded gecko (Coleonyx variegatus abbotti)	USFWS: None CDFW: None County: Group 1	<ul> <li>montane buckwheat scrub</li> <li>big sagebrush scrub</li> <li>granitic chamise chaparral</li> <li>granitic northern mixed chaparral</li> <li>red shank chaparral</li> <li>semi-desert chaparral</li> <li>chamise chaparral</li> <li>southern mixed chaparral</li> <li>mulefat scrub</li> <li>alluvial fan scrub</li> </ul>	There is 399,880 acres of modeled habitat within the biological cumulative study area.	<ul> <li>montane buckwheat scrub</li> <li>big sagebrush scrub</li> <li>granitic chamise chaparral</li> <li>granitic northern mixed chaparral</li> <li>red shank chaparral</li> <li>semi-desert chaparral</li> </ul>	High potential to occur. There is 36.4 acres of modeled habitat within the Boulder Brush Corridor.	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 proposed 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 5-5
Permanent Impacts to Group 1 and/or CDFW SSC 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 Study	Biological Cumulative Study Area Habitat Total	Modeled Habitat within the Boulder Brush Corridor	Occurrence and Development Footprint Habitat Total	Significance Determination
Blainville's horned lizard ( <i>Phrynosoma blainvillii</i> )	USFWS: None CDFW: SSC County: Group 2	<ul> <li>montane buckwheat scrub</li> <li>big sagebrush scrub</li> <li>granitic chamise chaparral</li> <li>granitic northern mixed chaparral</li> <li>southern mixed chaparral</li> <li>red shank chaparral</li> <li>semi-desert chaparral</li> <li>chamise chaparral</li> <li>non-native grassland</li> <li>southern arroyo willow riparian forest</li> <li>coast live oak woodland</li> <li>desert woodland</li> <li>pine forest</li> <li>oak riparian forest</li> <li>riparian scrub</li> <li>alluvial fan scrub</li> <li>sea level to 8,000 ft. amsl (2,438 m amsl)</li> </ul>	There is 472,398 acres of modeled habitat within the biological cumulative study area.	<ul> <li>montane         buckwheat scrub</li> <li>big sagebrush         scrub</li> <li>granitic chamise         chaparral</li> <li>granitic northern         mixed chaparral</li> <li>red shank         chaparral</li> <li>semi-desert         chaparral</li> <li>southern arroyo         willow riparian         forest</li> <li>coast live oak         woodland</li> <li>sea level to 8,000         ft. amsl (2,438 m         amsl)</li> </ul>	Observed in four locations in the central-eastern and western, and southern-eastern and western portions of the Boulder Brush Corridor. There is 37.5 acres of modeled habitat within the Boulder Brush Corridor.	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 proposed 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 5-5
Permanent Impacts to Group 1 and/or CDFW SSC 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 Study	Biological Cumulative Study Area Habitat Total	Modeled Habitat within the Boulder Brush Corridor	Occurrence and Development Footprint Habitat Total	Significance Determination
Coronado skink (Plestiodon skiltonianus interparietalis)	USFWS: None CDFW: SSC County: Group 2	<ul> <li>granitic chamise chaparral</li> <li>granitic northern mixed chaparral</li> <li>red shank chaparral</li> <li>semi-desert chaparral</li> <li>chamise chaparral</li> <li>southern mixed chaparral</li> <li>alluvial fan scrub</li> <li>sea level to 8,300 ft. amsl (2,530 m amsl)</li> </ul>	There is 374,167 acres of modeled habitat within the biological cumulative study area.	granitic chamise chaparral granitic northern mixed chaparral red shank chaparral semi-desert chaparral sea level to 8,300 ft. amsl (2,530 m amsl)	High potential to occur. There is 28.0 acres of modeled habitat within the Boulder Brush Corridor.	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 proposed 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 5-5
Permanent Impacts to Group 1 and/or CDFW SSC 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 Study	Biological Cumulative Study Area Habitat Total	Modeled Habitat within the Boulder Brush Corridor	Occurrence and Development Footprint Habitat Total	Significance Determination
Coast patch- nosed snake (Salvadora hexalepis virgultea)	USFWS: None CDFW: SSC County: Group 2	<ul> <li>montane buckwheat scrub</li> <li>big sagebrush scrub</li> <li>granitic chamise chaparral</li> <li>granitic northern mixed chaparral</li> <li>red shank chaparral</li> <li>semi-desert chaparral</li> <li>chamise chaparral</li> <li>southern mixed chaparral</li> <li>non-native grassland</li> <li>disturbed habitat</li> <li>wildflower</li> <li>mulefat scrub</li> <li>coast live oak woodland</li> <li>desert woodland</li> <li>pine forest</li> <li>oak riparian forest</li> <li>southern arroyo willow riparian forest</li> <li>riparian scrub</li> <li>alluvial fan scrub</li> <li>southern willow scrub</li> </ul>	There is 505,063 acres of modeled habitat within the biological cumulative study area.	<ul> <li>montane buckwheat scrub</li> <li>big sagebrush scrub</li> <li>granitic chamise chaparral</li> <li>granitic northern mixed chaparral</li> <li>red shank chaparral</li> <li>semi-desert chaparral</li> <li>disturbed habitat</li> <li>wildflower</li> <li>coast live oak woodland</li> <li>southern arroyo willow riparian forest</li> <li>below sea level to 7,000 ft. amsl (2,130 m amsl)</li> </ul>	High potential to occur. There is 43.6 acres of modeled habitat within the Boulder Brush Corridor.	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 proposed 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 5-5
Permanent Impacts to Group 1 and/or CDFW SSC 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 Study	Biological Cumulative Study Area Habitat Total	Modeled Habitat within the Boulder Brush Corridor	Occurrence and Development Footprint Habitat Total	Significance Determination
		<ul> <li>below sea level to 7,000 ft. amsl (2,130 m amsl)</li> </ul>				
			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 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 chamise chaparral	There is 59,756 acres of modeled nesting habitat and 448,719 acres of modeled foraging habitat within the biological cumulative 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 Corridor.	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 proposed 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 5-5
Permanent Impacts to Group 1 and/or CDFW SSC 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 Study	Biological Cumulative Study Area Habitat Total	Modeled Habitat within the Boulder Brush Corridor	Occurrence and Development Footprint Habitat Total	Significance Determination
Bell's sage sparrow (Artemisiospiza belli belli)	USFWS: BCC CDFW: WL County: Group 1	<ul> <li>non-native grassland</li> <li>southern arroyo willow riparian forest</li> <li>coast live oak woodland</li> <li>eucalyptus woodland</li> <li>oak riparian forest</li> <li>riparian scrub</li> <li>mulefat scrub</li> <li>cismontane alkali marsh</li> <li>Nesting and foraging</li> <li>montane buckwheat scrub</li> <li>big sagebrush scrub</li> <li>granitic chamise chaparral</li> <li>granitic northern mixed chaparral</li> <li>red shank chaparral</li> <li>semi-desert chaparral</li> <li>chamise chaparral</li> <li>southern mixed chaparral</li> <li>non-native grassland</li> <li>mulefat scrub</li> <li>riparian scrub</li> </ul>	There is 410,658 acres of modeled habitat within the biological cumulative study area.	southern arroyo willow riparian forest coast live oak woodland      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 Corridor.	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 proposed Project would be potentially significant prior to implementation of mitigation as the

Table 5-5
Permanent Impacts to Group 1 and/or CDFW SSC 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 Study	Biological Cumulative Study Area Habitat Total	Modeled Habitat within the Boulder Brush Corridor	Occurrence and Development Footprint Habitat Total	Significance Determination
		alluvial fan scrub		semi-desert chaparral		Project would impact more than 5% of habitat within the Boulder Brush Corridor (Impact W-2).
Loggerhead shrike ( <i>Lanius</i> <i>ludovicianus</i> ) (nesting)	USFWS: BCC CDFW: SSC County: Group 1	<ul> <li>montane buckwheat scrub</li> <li>big sagebrush scrub</li> <li>non-native grassland</li> <li>mulefat scrub</li> <li>riparian scrub</li> <li>disturbed habitat</li> <li>wildflower</li> <li>eucalyptus woodland</li> <li>desert woodland</li> <li>alluvial fan scrub</li> <li>semi-desert chaparral</li> <li>southern mixed chaparral</li> </ul>	There is 57,950 acres of modeled habitat within the biological cumulative study area.	montane     buckwheat scrub     big sagebrush     scrub     disturbed habitat     wildflower     semi-desert     chaparral	Observed within the Project Site. There is 24.9 acres of modeled nesting/foraging habitat within the Boulder Brush Corridor.	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 proposed 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 5-5
Permanent Impacts to Group 1 and/or CDFW SSC 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 Study	Biological Cumulative Study Area Habitat Total	Modeled Habitat within the Boulder Brush Corridor	Occurrence and Development Footprint Habitat Total	Significance Determination
Yellow warbler (Setophaga petechia)	USFWS: BCC CDFW: SSC County: Group 2	<ul> <li>southern arroyo willow riparian forest</li> <li>coast live oak woodland</li> <li>oak riparian forest</li> <li>riparian forest</li> <li>riparian scrub</li> <li>southern willow scrub</li> <li>freshwater marsh</li> <li>mulefat scrub</li> </ul>	There is 44,334 acres of modeled habitat within the biological cumulative study area.	southern arroyo willow riparian forest     coast live oak woodland	Observed within the Project Site. There is 1.2 acres of modeled nesting/foraging habitat within the Boulder Brush Corridor.	Although there is a large amount of habitat within the region, of which 39% is in public ownership and is reasonable anticipated to remain undisturbed, impacts to suitable habitat associated with the proposed 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 5-5
Permanent Impacts to Group 1 and/or CDFW SSC 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 Study	Biological Cumulative Study Area Habitat Total	Modeled Habitat within the Boulder Brush Corridor	Occurrence and Development Footprint Habitat Total	Significance Determination
			Mammals			
Western red bat (Lasiurus blossevillii)	USFWS: None CDFW: SSC MSCP: Not Covered County: Group 2	<ul> <li>southern arroyo willow riparian forest</li> <li>coast live oak woodland</li> <li>oak riparian forest</li> <li>eucalyptus woodland</li> <li>riparian forest</li> <li>pine forest</li> <li>riparian scrub</li> <li>southern willow scrub</li> </ul>	There is 59,859 acres of modeled habitat within the biological cumulative 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 Corridor.	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 proposed 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 5-5
Permanent Impacts to Group 1 and/or CDFW SSC 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 Study	Biological Cumulative Study Area Habitat Total	Modeled Habitat within the Boulder Brush Corridor	Occurrence and Development Footprint Habitat Total	Significance Determination
San Diego black-tailed jackrabbit (Lepus californicus bennettii)	USFWS: None CDFW: SSC County: Group 2	<ul> <li>montane buckwheat scrub</li> <li>big sagebrush scrub</li> <li>granitic chamise chaparral</li> <li>granitic northern mixed chaparral</li> <li>red shank chaparral</li> <li>semi-desert chaparral</li> <li>chamise chaparral</li> <li>southern mixed chaparral</li> <li>non-native grassland</li> <li>mulefat scrub</li> <li>riparian scrub</li> <li>alluvial fan scrub</li> <li>desert woodland</li> </ul>	There is 413,938 acres of modeled habitat within the biological cumulative study area.	<ul> <li>montane buckwheat scrub</li> <li>big sagebrush scrub</li> <li>granitic chamise chaparral</li> <li>granitic northern mixed chaparral</li> <li>red shank chaparral</li> <li>semi-desert chaparral</li> </ul>	Observed within the Boulder Brush Corridor. There is 36.4 acres of modeled habitat within the Boulder Brush Corridor.	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 proposed 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).

Table 5-5
Permanent Impacts to Group 1 and/or CDFW SSC 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 Study	Biological Cumulative Study Area Habitat Total	Modeled Habitat within the Boulder Brush Corridor	Occurrence and Development Footprint Habitat Total	Significance Determination
San Diego desert woodrat (Neotoma lepida intermedia)	USFWS: None CDFW: SSC County: Group 2	<ul> <li>montane buckwheat scrub</li> <li>big sagebrush scrub</li> <li>granitic chamise chaparral</li> <li>chamise chaparral</li> <li>non-native grassland</li> <li>mulefat scrub</li> <li>riparian scrub</li> <li>disturbed habitat</li> <li>wildflower</li> <li>alluvial fan scrub</li> <li>desert woodland</li> <li>southern mixed chaparral</li> <li>semi-desert chaparral</li> </ul>	There is 415,819 acres of modeled habitat within the biological cumulative study area.	montane     buckwheat scrub     big sagebrush     scrub     granitic chamise     chaparral     disturbed habitat     wildflower     semi-desert     chaparral	High potential to occur. There is 26.0 acres of modeled habitat within the Boulder Brush Corridor.	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 proposed Project would be implementation significant as the Project would impact more than 5% of habitat within the Boulder Brush Corridor (Impact W-2).

#### Federal

BCC = Birds of Conservation Concern

FE = Federally Endangered

#### State

FP = Fully Protected

SE = State Endangered

SSC = Species of Special Concern

WL = Watch List



Impact W-5: Permanent Direct Impacts to Potentially Occupied Quino Checkerspot Butterfly

Quino checkerspot butterfly is the only known federally listed species to occur within the Boulder Brush Corridor. Quino checkerspot butterfly was observed once in the southwest portion of the Boulder Brush Corridor during the 2019 focused surveys (see Section 4.6.1) (Figure 5-1i). Dudek modeled habitat in order to estimate the overall potentially occupied areas within the Boulder Brush Corridor (see Section 4.6.1). The Boulder Brush Facilities would result in impacts to 54.79 acres of Quino checkerspot butterfly habitat (Figure 5-3), a portion of which is considered occupied based on the 2019 Quino checkerspot butterfly observations. There is no modeled habitat that overlaps with the 2.63 acres of previously un-surveyed areas within the Boulder Brush Facilities. These areas will be surveyed for plants in the spring and summer of 2020; if any host plants for Quino checkerspot butterfly are observed, the habitat model will be updated accordingly.

The significance determination of these potential impacts is presented in Section 6.2.1 of this Report.

#### **Indirect Impacts to Special-Status Wildlife Species**

### **Temporary Indirect Impacts**

**Impact W-6:** Temporary Indirect Impacts to Special-Status Wildlife Species

Temporary indirect impacts to avian foraging and wildlife access to foraging, nesting, or water resources would primarily result from Boulder Brush Facilities construction activities limiting access to those resources (**Impact W-6**). 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): increased human access, vehicle collisions, 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. These potential impacts are described in detail below.

**Increased Human Access.** Construction activities can deter wildlife from using habitat areas near the development footprint and increase the potential for vehicle collisions.

**Pests or Exotic Species.** Trash from construction-related activities could attract invasive predators such as ravens and coyotes that could impact the wildlife species in 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 turbines and associated



infrastructure. 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 (Lovich and Ennen 2011; Brattstrom and Bondello 1983, as cited in Lovich and Ennen 2011). 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. The Project is currently 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 frequent 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 Project construction. While typical construction activities would occur between 7 a.m. and 7 p.m., Monday through Friday, construction might occasionally occur during the night and/or on Saturdays and Sundays to enable deliveries or other activities for which Caltrans may restrict hours during which I-8 may be used for oversized loads. The Project would involve blasting and rock crushing. Lighting associated with possible nighttime work would be limited to vehicle deliveries and 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 poisoning or 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 Project will 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 above in Section 5.1.1.2. Alterations of plant communities could affect wildlife that relies on those habitat types.

The significance determination of these potential impacts is presented in Section 6.2.8 of this Report.

# Permanent Indirect Impacts

**Impact W-7:** 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 after construction, including impacts related to operation and maintenance (**Impact W-7**). 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): increased human access, increased predation or competition from domestic animals, 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. All special-status wildlife species at the edge of the development footprint could potentially be impacted by temporary indirect impacts. 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 Section 5.1.1 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 development footprint. O&M activities are very limited on Boulder Brush and the potential for vehicle collisions is low.

**Increased Predation or Competition from Domestic Animals.** No domestic animals are anticipated to be on site related to the Project.

**Pests or Exotic Species.** As described in Section 5.1.1, 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 in 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<sub>eq</sub> at a distance of 15,000 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. Lighting will be installed inside the high-voltage substation and switchyard fenced areas for the purpose of emergency repair work. Since nighttime maintenance activities are not expected to occur more than once per year, the safety lighting inside the fence would normally be turned off. Some of the perimeter lighting in both facilities will remain on all night for safety purposes.

**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.** The effects of fugitive dust on special-status wildlife are described in Section 5.3.1.

**Alteration of the Natural Fire Regime.** The effects of altered natural fire regime on special-status wildlife are the same as those described above in Section 5.1.1.2. Alterations of plant communities could affect wildlife that relies on those habitat types.

The significance determination of these potential impacts is presented in Section 6.2.8 of this Report.

# 5.3.2 Campo Wind Facilities

### **Direct Impacts to Special-Status Wildlife Species**

### Temporary Direct Impacts

For purposes of this analysis, all impacts associated with the Campo Wind Facilities are considered permanent direct impacts.

### Permanent Direct Impacts

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

Quino checkerspot butterfly is the only known federally listed species to occur within the Campo Corridor. Quino checkerspot butterfly was observed during the 2010 focused surveys within portions of the Campo Corridor as well as outside the Campo Corridor (see Section 4.6.2) (Figure 4-5). No Quino checkerspot butterflies were observed during the focused 2018 surveys; however, that does not override the results of the previous survey efforts. Dudek modeled habitat in order to estimate potentially occupied areas on site (see Section 4.6.2). There are impacts to



272.81 acres of potentially occupied Quino checkerspot butterfly habitat (Figure 5-3), a portion of which is considered occupied based on the 2010 Quino checkerspot butterfly observations.

The significance determination for these potential impacts is presented in Section 6.2.1 in this Report.

**Impact W-B:** Permanent Direct Impacts to Habitat for Special-Status Wildlife Species

Permanent direct impacts to special-status wildlife species were quantified by comparing the development footprint with suitable habitat for wildlife species observed or those that have a high potential to occur within the Campo Corridor. Implementation of the Campo Wind Facilities On-Reservation would result in the direct loss of habitat, including foraging habitat, for some of the County of San Diego Group 1 and Group 2 species and SSCs described in Section 4.6.2 (Impact W-B). Table 5-6 outlines impacts to suitable habitat for County Group 1 and/or SSC species that are known to occur within the Campo Corridor or immediately surrounding area and those with a high potential to occur. Group 2 special-status wildlife species, that are not state SSC animals, are not included in the table as loss of habitat for these species from development of the Project would be less than significant. These species occur within a variety of habitats and through a wide geographic, topographic, and elevation ranges where there is an abundance of these species in the region.

Recorded locations of special-status wildlife observed are shown in the Figure 5-2 series, and described in Section 4.6.2. The significance determination for these potential impacts is described in Section 6.2.2.

Table 5-6
Permanent Impacts to Group 1 and/or CDFW SSC Wildlife Species Present within the
Campo Corridor or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal State County Group	Modeled Habitat	Biological Cumulative Analysis Study Area Habitat Total	Modeled Habitat within the Development Footprint and Occurrence	Significance Determination
		Amphibians and	d Reptiles		
Arroyo toad (Anaxyrus californicus)	USFWS: FE CDFW: SSC County: Group 1	freshwater marsh	acres of modeled habitat within the biological cumulative analysis study area.	occur within the Campo Wind Corridor. There is 0.3 acres of modeled habitat within the Campo	Given the large amount of habitat within the cumulative study area, impacts to suitable habitat associated with the Project would be less than significant.

Table 5-6
Permanent Impacts to Group 1 and/or CDFW SSC Wildlife Species Present within the
Campo Corridor or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal State County Group	Modeled Habitat	Biological Cumulative Analysis Study Area Habitat Total	Modeled Habitat within the Development Footprint and Occurrence	Significance Determination
whiptail	USFWS: None CDFW: SSC County: Group 2	<ul> <li>big sagebrush scrub</li> <li>granitic chamise chaparral</li> <li>granitic northern mixed chaparral</li> </ul>	within the biological	Observed in the east-central portion of the Campo Wind Corridor. There is 771.0 acres of modeled habitat within the Campo Wind Facilities.	Given the large amount of habitat within the cumulative study area, impacts to suitable habitat associated with the Project would be less than significant.
	USFWS: None CDFW: None County: Group 1	<ul> <li>big sagebrush scrub</li> <li>granitic chamise chaparral</li> <li>granitic northern mixed chaparral</li> </ul>	within the biological	High potential to occur within the Campo Wind Corridor. There is 699.7 acres of modeled habitat within the Campo Wind Facilities.	Given the large amount of habitat within the cumulative study area, impacts to suitable habitat associated with the Project would be less than significant.
Blainville's horned lizard ( <i>Phrynosoma</i> blainvillii)	USFWS: None CDFW: SSC County: Group 2	• big sagebrush scrub	There is 29,575,617 acres of modeled habitat within the	Observed in four locations in the central-eastern and western, and southern-eastern	Given the large amount of habitat within the cumulative study area, impacts to suitable habitat

Table 5-6
Permanent Impacts to Group 1 and/or CDFW SSC Wildlife Species Present within the
Campo Corridor or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal State County Group	Modeled Habitat	Biological Cumulative Analysis Study Area Habitat Total	Modeled Habitat within the Development Footprint and Occurrence	Significance Determination
		<ul> <li>granitic chamise chaparral</li> <li>granitic northern mixed chaparral</li> <li>red shank chaparral</li> <li>scrub oak chaparral</li> <li>upper Sonoran subshrub scrub</li> <li>valley Sacaton grassland</li> <li>non-native grassland</li> <li>non-native grassland broadleaf-dominated</li> <li>coast live oak woodland</li> <li>coast live oak riparian forest</li> <li>sea level to 8,000 ft. (2,438 m)</li> </ul>	biological cumulative study area.	and western portions of the Campo Wind Corridor. There is 746.8 acres of modeled habitat within the Campo Wind Facilities.	associated with the Project would be less than significant.
Coronado skink (Plestiodon skiltonianus interparietalis)	USFWS: None CDFW: SSC County: Group 2	big sagebrush scrub     granitic chamise     chaparral     granitic northern mixed     chaparral     red shank chaparral	within the biological	High potential to occur within the Campo Wind Corridor. There is 616.8 acres of modeled habitat within the Campo Wind Facilities.	Given the large amount of habitat within the cumulative study area, impacts to suitable habitat associated with the Project would be less than significant.
snake (Salvadora	USFWS: None CDFW: SSC County: Group 2	scrub  • big sagebrush scrub  • granitic chamise	There is 33,421,368 acres of modeled habitat within the biological	High potential to occur within the Campo Wind Corridor. There is 794.3 acres of modeled habitat	Given the large amount of habitat within the cumulative study area, impacts to suitable habitat associated with the

Table 5-6
Permanent Impacts to Group 1 and/or CDFW SSC Wildlife Species Present within the
Campo Corridor or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal State County Group	Modeled Habitat	Biological Cumulative Analysis Study Area Habitat Total	Modeled Habitat within the Development Footprint and Occurrence	Significance Determination
		<ul> <li>red shank chaparral</li> <li>scrub oak chaparral</li> <li>upper Sonoran subshrub scrub</li> <li>valley Sacaton grassland</li> <li>non-native grassland broadleaf-dominated</li> <li>coast live oak riparian forest</li> <li>coast live oak woodland</li> <li>disturbed habitat</li> <li>mulefat scrub</li> <li>southern willow scrub</li> <li>below sea level to 7,000 ft. (2,130 m)</li> </ul>	cumulative study area.	within the Campo Wind Facilities.	Project would be less than significant.
		Birds			
Cooper's hawk (Accipiter cooperii) (nesting)	USFWS: None CDFW: WL County: Group 1	<ul> <li>Nesting</li> <li>coast live oak woodland</li> <li>coast live oak riparian forest</li> <li>mulefat scrub</li> <li>Foraging</li> <li>montane buckwheat</li> </ul>	of modeled nesting habitat and 29,556,616 acres of modeled foraging habitat within the biological	Observed within the northern and southern portions of the Campo Wind Corridor. There is 22.3 acres of modeled nesting habitat and 746.8 acres of modeled foraging habitat within the Campo Wind Facilities.	Given the large amount of habitat within the cumulative study area, impacts to suitable habitat associated with the Project would be less than significant.

Table 5-6
Permanent Impacts to Group 1 and/or CDFW SSC Wildlife Species Present within the
Campo Corridor or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal State County Group	Modeled Habitat	Biological Cumulative Analysis Study Area Habitat Total	Modeled Habitat within the Development Footprint and Occurrence	Significance Determination
Bell's sage sparrow (Artemisiospiza belli belli)	USFWS: BCC CDFW: WL County: Group 1	<ul> <li>non-native grassland broadleaf-dominated</li> <li>valley Sacaton grassland</li> <li>coast live oak woodland</li> <li>coast live oak riparian forest</li> <li>mulefat scrub</li> <li>Nesting and foraging</li> <li>montane buckwheat scrub</li> <li>big sagebrush scrub</li> <li>granitic chamise chaparral</li> <li>granitic northern mixed chaparral</li> <li>red shank chaparral</li> <li>scrub oak chaparral</li> <li>upper Sonoran subshrub scrub</li> <li>non-native grassland</li> <li>non-native grassland</li> <li>valley Sacaton grassland</li> <li>mulefat scrub</li> </ul>	27,096,638 acres of modeled habitat within the biological cumulative study area.	High potential to occur within the Campo Wind Corridor. There is 724.5 acres of modeled nesting/foraging habitat within the Campo Wind Facilities.	Given the large amount of habitat within the cumulative study area, impacts to suitable habitat associated with the Project would be less than significant.
Long-eared owl (Asio otus)	USFWS: None CDFW: SSC County: Group 1	<ul> <li>montane buckwheat scrub</li> <li>non-native grassland</li> <li>non-native grassland broadleaf-dominated</li> <li>upper Sonoran subshrub scrub</li> <li>valley Sacaton grassland</li> <li>emergent wetland</li> </ul>	5,756,163 acres of modeled habitat within the biological cumulative study area.	Low potential to occur within the Campo Wind Corridor. There is 74.3 acres of modeled nesting/foraging habitat within the Campo Wind Facilities.	Given the large amount of habitat within the cumulative study area, impacts to suitable habitat associated with the Project would be less than significant.

Table 5-6
Permanent Impacts to Group 1 and/or CDFW SSC Wildlife Species Present within the
Campo Corridor or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal State County Group	Modeled Habitat	Biological Cumulative Analysis Study Area Habitat Total	Modeled Habitat within the Development Footprint and Occurrence	Significance Determination
Prairie falcon (Falco mexicanus)	USFWS: BCC CDFW: WL County: Group 1	<ul> <li>coast live oak riparian forest</li> </ul>	habitat within the biological cumulative study area.	Campo Wind Corridor. There is 21.4 acres of	Given the large amount of habitat within the cumulative study area, impacts to suitable habitat associated with the Project would be less than significant.
Loggerhead shrike ( <i>Lanius Iudovicianus</i> ) (nesting)	USFWS: BCC CDFW: SSC County: Group 1	non-native grassland     non-native grassland     hroadlast dominated	acres of modeled habitat within the biological cumulative study area.	Observed within the Campo Wind Corridor. There is 154.2 acres of modeled nesting/foraging habitat within the Campo Wind Facilities.	Given the large amount of habitat within the cumulative study area, impacts to suitable habitat associated with the Project would be less than significant.
Yellow warbler (Setophaga petechial)	USFWS: BCC CDFW: SSC County: Group 2	<ul> <li>coast live oak riparian forest</li> <li>emergent wetland</li> </ul>	2,460,623 acres of modeled habitat within the biological cumulative study area.	Corridor. There is 22.9 acres of modeled	Impacts to yellow warbler would be less than significant due to the small amount of suitable nesting habitat proposed to be impacted.

Table 5-6
Permanent Impacts to Group 1 and/or CDFW SSC Wildlife Species Present within the
Campo Corridor or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal State County Group	Modeled Habitat	Biological Cumulative Analysis Study Area Habitat Total	Modeled Habitat within the Development Footprint and Occurrence	Significance Determination
		Mamma	ls		
Western red bat (Lasiurus blossevillii)	USFWS: None CDFW: SSC MSCP: Not Covered County: Group 2	<ul> <li>coast live oak riparian forest</li> <li>southern willow scrub</li> </ul>	2,474,589 acres of modeled habitat within the biological cumulative study area.	Campo Wind Corridor. There is 22.5 acres of	Given the large amount of habitat within the cumulative study area, impacts to suitable habitat associated with the Project would be less than significant.
tailed jackrabbit	USFWS: None CDFW: SSC County: Group 2	<ul> <li>big sagebrush scrub</li> <li>granitic chamise chaparral</li> </ul>		modeled habitat within the Campo	Given the large amount of habitat within the cumulative study area, impacts to suitable habitat associated with the Project would be less than significant.
woodrat	USFWS: None CDFW: SSC County: Group 2	<ul> <li>big sagebrush scrub</li> <li>granitic chamise chaparral</li> </ul>	23,837,041 acres of modeled habitat within the biological cumulative study	High potential to occur within the Campo Wind Corridor. There is 613.1 acres of modeled habitat within the Campo Wind Facilities.	Given the large amount of habitat within the cumulative study area, impacts to suitable habitat associated with the Project would be less than significant.

Impact W-C and W-D: Permanent Direct Impacts to Special-Status Wildlife Species

**Impact W-C:** Impacts to Active Nests

If any active nests or the young of nesting special-status bird species are impacted through direct grading, these impacts would be considered significant, absent mitigation (**Impact W-C**). O&M during the life of the Project is not expected to affect the nesting opportunities of birds.

Golden Eagle. 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. The Campo Wind Facilities would be located near existing wind turbines within the Project Vicinity; the existing turbines likely deter golden eagle from utilizing the Campo Corridor. 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 constraining the eagles from occupying nests within their existing territory.

Golden eagle use in the Project Area and surrounding area is described in Section 4.6.2. The infrequent sightings during the eagle point surveys and USGS biotelemetry data suggests that the Campo Wind Corridor and surrounding area receives little use by eagles and is not the core territory of any eagles. A separate golden eagle report using USFSW guidance is being prepared that will address golden eagles in more detail for the purposes of determining if an eagle take permit is needed.

Furthermore, a study conducted by WEST (2010) analyzed turbine collision risk to eagles. This study included a comparison of the Tule Wind project to other wind projects throughout the United States, including two wind projects in California that had golden eagle observations. The study concluded that there was a low risk of turbine collision for eagles. However, it is recognized that this study was not based on data specific to the Project Site. The study also states that risk could be higher if birds in the vicinity are spending more time foraging in or around turbines. No specific studies, mapping, monitoring, or telemetry data had been collected to understand golden eagle use areas or behavioral patterns in or around the Tule Wind Site.

However, the telemetry data provided in this report shows that there were very few golden eagle incursions over the Project Site when compared to their overall use areas and the larger geographic area in which the Project Site is situated. Additionally, the areas surrounding the Project Site are rural and undeveloped, allowing golden eagles to forage in those locations and thus, spend less time at the Project Site foraging. Therefore, given the information and data demonstrating that eagles have low risk of turbine collision and that they spend minimal time at the Project Site, elevation information for telemetry data is not needed.



Table 5-7 shows the relevant variables and estimated golden eagle mortality risk per year (USFWS 2018b).

Table 5-7
Years 1 and 2 (30-Minute Surveys) – Turbine Model Specs and CI 80 Results for Various Turbine Models

Existing/Proposed/ Hypothetical	Turbine Model	Number of Turbines	Rotor Diameter (Meters)	Blade Ground Clearance (Meters)	•	CI 80 (Estimated GOEA Mortality/Year)
Proposed	N/A	60	141	44	179	0.12
Alternative	N/A	48	141	44	179	0.096

Notes: GOEA = golden eagle; N/A = not applicable.

Golden eagle mortality risk per year is estimated at the 80% confidence interval using the USFWS Risk Estimator R Package (USFWS 2018b).

There are no golden eagle nests within the Campo Corridor, nor within 4,000 feet of the Campo Wind Facilities. The nearest active golden eagle nest (e.g., nesting behavior documented) to the development footprint of the Campo Wind Facilities is approximately 7 miles east of the Campo Corridor 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). Nine golden eagles were observed flying over the Campo Corridor during the 2017 through 2019 surveys (see Section 4.6.2.1) (Figure 4-2 series). In total, as of September 2019, eagles were observed on site 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 not occur in the Campo Corridor with much frequency. Therefore, construction and implementation of the Campo Wind Facilities would not result in direct permanent impacts to golden eagle nests, given the distance between nest sites and the Campo Wind Facilities.

The significance determination for these potential impacts is presented in Section 6.2.2 in this Report.

### **Impact W-D** Impacts to Wildlife Species from Collisions and Electrocution

Avian. There are potential impacts from avian collisions with turbines or towers and electrocution by transmission lines (gen-tie) (**Impact W-D**). Birds can collide with structures during migration or hunting/foraging activities.

*Bats*. The abundance of bats adjacent to the Campo Corridor is low when compared to other habitat types and regions. Thus, most species of bats are at minimal risk of adverse encounters with wind turbines.

Risk to bats associated with the Project primarily stems from direct impacts to roost sites, electrocution, barotrauma, and collision. In this case, no maternity roost sites are known from the



area or nearby. The Shu'luuk Wind Project found limited non-maternal roost locations potentially supporting one or few animals only. The Tule Wind Project found only one horizontal mine shaft that had potential to support roosting bats; located 1 mile from Project turbines. Because of the type of infrastructure and wiring protections, electrocution is also of limited risk. Additionally, because of the slower speeds associated with Project turbines, barotrauma is also of limited to no risk. The National Renewable Energy Laboratory (NREL 2018) conducted one of the few studies to attempt to analyze actual risk related to the barotrauma hypothesis. They used computational simulations and analytics to determine actual risk. Using realistic assumptions regarding activity (e.g., 15 m/s as the highest wind speed that bats would be expected to fly) and survival pressures (i.e., existing data regarding rats as a surrogate), and comparing three different distances from the blade, they concluded that (1) the pressure drop on the suction side of the blade was a factor of four less than the lethality threshold for rats, (2) the low-pressure region over the blade is highly localized, and (3) the minimum pressure in the tip vortex is a factor of three less than the lethality threshold for rats. While the actual relationship between rat thresholds and bat thresholds are not known, they seem to be an equivalent surrogate and the conclusion was that it seemed unlikely that barotrauma is a significant contributor to turbine-related bat deaths.

Regarding the potential relative risk of collision for bats, a number of factors are important to consider. The abundance of bats within and adjacent to the biological study area is low when compared to other habitat types and regions. The Searchlight Nevada project (O'Farrell 2010) used paired high and low acoustic monitoring units similar to the acoustical bat surveys for performed for the Jewell Valley project; the majority of species, excluding the migratory tree bats and high-flying molossids, were found to fly less than 30 meters in height and those that did occur within the higher spaces represented only a small fraction of total activity. The Shu'luuk data and Jewell Valley data sets showed most of the bat activity occurred around the lower microphone, or 15 feet off the ground and far under the rotor swept area. Thus, most species of bats are at minimal risk of adverse encounters with wind turbines. The overall magnitude of bat usage within the Campo Corridor is significantly less than any locations studied that contain attractant features (see Section 4.4, Wildlife Diversity). This suggests that the risk for bat collisions with Project wind turbines is low when taking into account the overall low abundance of bats in the area and lower abundance of high-flying bats (see Table 19 in Appendix H to the Campo EIS). The acoustical bat results indicate that the activity at the higher microphone (which captures bats that tend to fly higher) was lower when compared to the lower microphone.

CEC (2013) notes that bats can be more attracted to areas with strong lights because of the increased insect prey availability and hypothesized that some observed mortalities may have been generated by the presence of strong lights in the vicinity of roost sites and turbines. CEC also notes

that there is no evidence that aviation lighting associated with nacelles contribute to bat mortality (Kunz et al. 2007, as cited in CEC 2013). No turbines will be located closer than 0.25 miles from an On-Reservation receptor, so the possibility of resident-induced lighting attractants are reduced.

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.

Golden Eagle. The USGS biotelemetry data indicates that golden eagle use within the Project Site and the surrounding area is low compared to other areas in San Diego (Tracey et al. 2016, 2017). During the 30-minute point-count surveys, only one juvenile golden eagle was detected on April 11, 2019, for 2 minutes. Single juvenile golden eagles were also detected during the all-day eagle surveys on October 6 and October 8, 2018. Additionally, eight golden eagles were detected between November 2017 and October 2018 on seven occasions for a total of 13 minutes (Figure 4-2 series). In total, as of September 2019, eagles were observed on site for approximately 15 of over 131,600 minutes during the 2017-2019 all-day eagle surveys and avian point-count surveys.

Based on the USGS telemetry data, as shown in Figures 4-4a through 4-4l 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, combined with the low number of observations during the 2017-2019 surveys, 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; therefore, the chance for electrocution and collision is low.

The significance determination for these potential impacts is presented in Section 6.2.2 in this Report.

# **Indirect Impacts to Special-Status Wildlife Species**

### **Temporary Indirect Impacts**

**Impact W-E:** Temporary Indirect Impacts to Special-Status Wildlife Species

Temporary (construction-related) indirect impacts from grading and other construction activities to special-status wildlife species' habitat outside of the limits of grading are similar to those described for vegetation in Section 5.1.2.2. Potential temporary indirect impacts include generation of fugitive dust; changes in hydrology resulting from construction, including sedimentation and erosion; and the introduction of chemical pollutants (including pesticides or herbicides). Additionally, construction-related noise 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 (Lovich and Ennen 2011; Brattstrom and Bondello 1983, as cited in Lovich and Ennen 2011). Construction-related noise and vibration could occur from equipment used during site preparation and grading, including vegetation clearing, and construction of the Project. Construction noise and vibration levels would vary from hour-to-hour and day-to-day, depending on the equipment in use, the operations being performed, and the distance between the source and receptor. Construction would occur during the day, and no construction is anticipated to take place at night. Increased noise and vibration can affect breeding behaviors in birds, mammals, reptiles, amphibians, and other species that use vocal methods for communication. Increased vibration can collapse small mammal, reptile, or amphibian burrows if they are located close to the construction equipment.

Construction activities increase the number of humans within the area, which can deter wildlife from using an area. Construction activities increase the number of vehicles on site, increasing the chance of collision. Additionally, trash from construction-related activities can attract predators to an area, increasing the chance of predation on wildlife species.

The significance determination for these potential impacts is described in Section 6.2.8 of this Report.

### **Permanent Indirect Impacts**

### **Impact W-F:** Permanent Indirect Impacts to Special-Status Wildlife Species

Permanent indirect impacts to special-status wildlife species are similar to those described for vegetation in Section 5.2.2. Potential permanent indirect impacts include generation of fugitive dust from O&M vehicles (similar to the temporary impacts), chemical pollutants if used for operation-related activities, light pollution, introduction of non-native species, habitat fragmentation, and increased fire regime. Dust can affect invertebrates as well as preventing nectaring on vegetation that is covered in dust; chemical pollutants can result in mortality of invertebrates, reptiles, and amphibians through direct contact; habitat fragmentation can prevent wildlife from foraging, expanding their ranges, moving between breeding, nesting, and foraging habitats, and overall reduce genetic diversity; and increased fire can reduce habitat or result in habitat type conversion that become unsuitable for wildlife as well as result in direct mortality of individual species (**Impact W-F**). The O&M Facility will have full-time employees that could result in increased vehicle collisions. All special-status wildlife species at the edge of the development footprint could potentially be impacted by permanent direct impacts. These potential impacts are described in detail in Section 5.3.2.



Operations-related lighting is limited to (1) restricted exterior lighting installed on turbines for Federal Aviation Administration aviation warning lights and (2) permanent motion-sensitive, directional security lights installed to provide adequate illumination around the collector substation. All lighting would be shielded and directed downward to minimize the potential for glare or spillover onto adjacent properties.

The significance determination for these potential impacts is described in Section 6.2.8 of this Report.

# 5.4 Jurisdictional Aquatic Resources

### 5.4.1 Boulder Brush Facilities

Features that convey or hold water are regulated by multiple agencies. Federal, state, and local agencies have different definitions and terminology for these types of features. As defined in Section 3.2.3, water-dependent resources regulated by USACE, RWQCB, CDFW, and the County are collectively referred to as jurisdictional aquatic resources herein.

# 5.4.1.1 Direct Impacts to Jurisdictional Aquatic Resources

The significance of these potential impacts is determined through application of the County's Significance Guidelines, described in Sections 7.1 and 8.1 of this report.

### **Temporary Direct Impacts**

**Impact JAR-1:** Temporary Direct Impacts to Jurisdictional Aquatic Resources within the Boulder Brush Corridor

Temporary direct impacts to jurisdictional wetlands and riparian areas and non-wetland waters would primarily result from construction activities. Temporary impacts to jurisdictional aquatic resources, including County RPO wetlands, are summarized in Table 5-8. The Boulder Brush Facilities would also result in temporary direct impacts to 0.68 acres of RPO wetland buffer (Figures 5-1f, 5-1j, and 5-1l), resulting in a total temporary direct impact to 1.17 acres of RPO wetland/wetland buffer. The temporary direct impacts to these waters and riparian areas will be restored to the extent feasible, but not through a long-term management plan. Therefore, for mitigation purposes, these impacts are considered permanent. Additionally, temporary construction-related direct impacts to jurisdictional aquatic resources could result from clearing, trampling, or grading of jurisdictional aquatic resources outside of Boulder Brush Facilities, which would be significant (Impact JAR-1). These potential impacts could damage individual plants 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.

Table 5-8
Impacts to Jurisdictional Aquatic Resources - Boulder Brush Corridor

		Perma	Permanent		Temporary		Total	
Jurisdiction	Туре	Acres	LF	Acres	LF	Acres	LF	
USACE/RWQCB/ CDFW	Non-Wetland Water – Intermittent (County RPO)	0.01	24	0.09	141	0.10	166	
	Non-Wetland Water – Ephemeral	0.11	1,612	0.21	2,277	0.32	3,858	
Total USACE/	RWQCB/CDFW Regulated Resources	0.12	1,636	0.30	2,419	0.42	4,055	
CDFW Only and		0.15	N/A	0.40a	N/A	0.55	N/A	
County RPO	Riparian Habitat							
To	0.15	N/A	0.40	N/A	0.55	6,204		

RPO = Resource Protection Ordinance; LF = linear feet

The significance determination for these potential impacts is described in Section 7.2.2 of this Report.

### **Permanent Direct Impacts**

**Impact JAR-2**: Permanent Direct Impacts to Jurisdictional Aquatic Resources within Boulder Brush Corridor

The Boulder Brush Facilities would permanently impact waters of the United States and state, as summarized in Table 5-8, totaling 0.27 acres of permanent impacts. (**Impact JAR-2**) (Figure 5-1 series).

The significance determination for these potential impacts is described in Section 7.2.2 of this Report.

### 5.4.1.2 Indirect Impacts to Jurisdictional Aquatic Resources

# **Temporary Indirect Impacts**

**Impact JAR-3:** Temporary Indirect Impacts to Jurisdictional Aquatic Resources within the Boulder Brush Corridor

There are potential temporary indirect impacts to jurisdictional aquatic resources in the Boulder Brush Corridor (**Impact JAR-3**). The indirect impacts below include the following potential indirect



The temporary direct impacts to 0.40 acres are temporarily impacted as part of a construction road that will be utilized only during construction and will not be a permanent access road. Vegetation in this area will be trimmed or disked and no gravel or pavement will be placed within the creek. Following project construction, the area will be re-countered and revegetated to restore Tule Creek to pre-project conditions.

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 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. Potential temporary indirect impacts that could affect all the jurisdictional aquatic resources that occur adjacent to development are described below.

**Increased Human Access.** The effects of increased human access on jurisdictional aquatic features are similar to those described in Section 5.1 for vegetation communities.

**Pests or Exotic Species.** The effects of pests or exotic species on jurisdictional aquatic features are similar to those described in Section 5.1 for vegetation communities.

**Increasing Noise and/or Nighttime Lighting.** The effects of noise and/or nighttime lighting on jurisdictional aquatic features are similar to those described in Section 5.1 for vegetation communities.

**Altering Natural Drainage.** The effects of altering natural drainages on jurisdictional aquatic features are similar to those described in Section 5.1 for vegetation communities.

**Generation of Fugitive Dust.** The effects of fugitive dust on jurisdictional aquatic features are similar to those described in Section 5.1, Indirect Impacts to Riparian Habitat or Sensitive Vegetation Communities, for vegetation communities.

**Chemical Pollutants.** The effects of chemical pollutants on jurisdictional aquatic features are similar to those described in Section 5.1 for vegetation communities.

The significance determination for these potential impacts is described in Section 7.2.2 of this Report.

### **Permanent Indirect Impacts**

**Impact JAR-4:** Permanent Indirect Impacts to Jurisdictional Aquatic Resources within the Boulder Brush Corridor

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 (**Impact JAR-4**). Operation and maintenance activities would occur within the development footprint. 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): 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. Each of these potential indirect impacts is discussed below.

**Increased Human Access.** The effects of increased human access on jurisdictional aquatic resources are similar to those described in Section 5.1 for vegetation communities.

**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 5.1 for vegetation communities.

**Altering Natural Drainage.** The effects of altering natural drainage are the same as to those described in Section 5.1 for vegetation communities.

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

**Generation of Fugitive Dust.** The effects of fugitive dust on jurisdictional aquatic resources are similar to those described in Section 5.1, Permanent Indirect Impacts, for vegetation communities.

**Chemical Pollutants.** The effects of chemical pollutants on jurisdictional aquatic resources are similar to those described in Section 5.1 for vegetation communities.

**Alteration of the Natural Fire Regime.** The effects of non-native, invasive plant and animal species on jurisdictional aquatic resources are similar to those described in Section 5.1 for vegetation communities.

The significance determination for these potential impacts is described in Section 7.2.2 of this Report.

# 5.4.2 Campo Wind Facilities

# 5.4.2.1 Direct Impacts to Jurisdictional Aquatic Resources

### **Temporary Direct Impacts**

For purposes of this analysis, all impacts associated with the Campo Wind Facilities are considered permanent direct impacts.



# **Permanent Direct Impacts**

**Impact JAR-A:** Permanent Direct Impacts to Jurisdictional Aquatic Resources within the Campo Corridor

There are direct impacts to jurisdictional aquatic resources as a result of the Campo Wind Facilities. Table 5-9 quantifies the impacts to these resources. Figure 5-2 series shows these impacts.

The significance determination for these potential impacts is described in Section 7.2.2 of this Report.

Table 5-9
Impacts to Waters and Wetlands of the United States – Campo Corridor

Feature Type	Type of Habitat (Oberbauer et al. 2008)	Type of Habitat (Cowardin et al. 1979)	Acres	Linear Feet
Non-wetland waters	Waters of the United States/ unvegetated channel – ephemeral	Riverine; unconsolidated Bottom, sand, ephemerally flooded, fresh	1.13	8,839
Non-wetland waters	Waters of the United States/ unvegetated channel – intermittent	Riverine; unconsolidated bottom, sand, intermittently flooded, fresh	<0.00	199
Riparian habitat	Emergent wetland Freshwater marsh Valley Sacaton grassland	Riparian; emergent, lentic, riparian	0.54	N/A
Riparian habitat	Southern willow scrub	Riparian; scrub-shrub, lentic, riparian	0.13	N/A
	otal Potential Jurisdictional Waters	1.81	9,038	

### 5.4.2.2 Indirect Impacts to Jurisdictional Aquatic Resources

### **Temporary Indirect Impacts**

**Impact JAR-B:** Temporary Indirect Impacts to Jurisdictional Aquatic Resources within the Campo Corridor

Temporary (construction-related) indirect impacts from grading and other construction activities to jurisdictional aquatic resources outside of the limits of grading are similar to those described for vegetation in Section 5.1. Potential temporary indirect impacts include generation of fugitive dust; changes in hydrology resulting from construction, including sedimentation and erosion; and the introduction of chemical pollutants (including herbicides). The standard BMPs described in Table 5-3



minimize some of these potential impacts, such as keeping equipment free of leaks, avoiding working in heavy rains, and establishing speed limits to reduce dust from equipment and vehicles.

The significance determination for these potential impacts is described in Section 7.2.2 of this Report.

### **Permanent Indirect Impacts**

**Impact JAR-C:** Permanent Indirect Impacts to Jurisdictional Aquatic Resources within the Campo Corridor

Permanent (operation-related) indirect impacts could result from the proximity of the Campo Wind Facilities to jurisdictional aquatic resources after construction are similar to those described for vegetation in Section 5.1. Potential permanent indirect impacts include generation of fugitive dust from vehicles (similar to the temporary impacts) and chemical pollutants if used for operation-related activities. The standard BMPs described in Table 5-3 minimize some of these potential impacts, such as speed limits to reduce dust from vehicles and trash abatement to reduce attraction of predators.

The significance determination for these potential impacts is described in Section 7.2.2 of this Report.

# 5.5 Habitat Connectivity and Wildlife Corridors

### 5.5.1 Boulder Brush Facilities

The significance of these potential impacts was determined through application of the County's Significance Guidelines, described in Section 9.1.

### 5.5.1.1 Direct Impacts to Habitat Connectivity and Wildlife Corridors

### **Temporary Direct Impacts**

**Impact WLC-1:** Temporary Direct Impacts to Habitat Connectivity and Wildlife Corridors for Boulder Brush Corridor

There are temporary direct impacts associated with the Boulder Brush Facilities development footprint. However, for mitigation purposes, these impacts are considered permanent and mitigated through habitat conservation. Temporary construction-related, direct impacts to habitat connectivity and wildlife corridors would primarily result from construction activities. 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. These potential impacts could affect wildlife movement through the area by temporarily cutting off access routes for foraging, mating and territories as well as the potential for being trapped in open trenches (**Impact WLC-1**).

The significance determination for these potential impacts is described in Section 9.2.1 of this Report.

### **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. See Section 4.8, Habitat Connectivity and Wildlife Corridors, for a detailed discussion regarding habitat connectivity and wildlife corridors. Although the Boulder Brush Facilities are included within a Core Wildlife Area, defined by the County based on its size and the surrounding undeveloped land, the area does not serve as a defined wildlife corridor or regional linkage, or other topographical features which confine wildlife movement.<sup>7</sup> The Boulder Brush Corridor is currently undeveloped, with scattered residential to the south and southwest. 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. Therefore, installation of the Boulder Brush Facilities is not anticipated to constrain a wildlife movement corridor within the region, particularly for terrestrial species. Impacts related to collisions and electrocution from resident or migratory birds and bats are described in Section 5.3 as well as below.

#### Impact W-4 Impacts to Wildlife Species from Collisions and Electrocution

All electrical transmission would be overhead connecting to the proposed high-voltage substation and ultimately to the Sunrise Powerlink transmission line. The utility poles would provide perches from which avian species may forage, thereby increasing the potential risk of fatality associated with collisions and electrocutions and resulting in a potentially significant impact (Impact W-4).

Bats. The abundance of bats within the Boulder Brush Corridor is low (IA range of 215-855), particularly when compared to other areas with higher quality habitat types in the region, such as the Virgin River sample area (IA of 46,583) and the Las Vegas Wash sample area (IA range of 28,594 to 168,428) (O'Farrell 2006a and 2006b).

As described in Section 4.8, 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.

Therefore, the overall magnitude of bat usage within the Boulder Brush Corridor is significantly less than any locations studied that contain attractant features (see Section 4.4.3, Mammals). This suggests that the risk for bat electrocution with Boulder Brush Facilities is low when taking into account the overall low abundance of bats in the area (see Table 4-2). The acoustical bat results indicate that the activity of the higher microphone (which captures bats that tend to fly higher), was lower when compared to the lower microphone. However, high-flying species such as hoary bat and Mexican free-tailed bat were detected with relatively low IAs. These species are known to fly at heights of 10 to 20 feet above ground and up to approximately 3,200 feet above ground (McCracken 1996). For reference, the gen-tie line polls would be up to 150 feet in height, and the tallest component of the high-voltage substation and switchyard would approximately 130 feet in height; however, the majority of the equipment associated with the high-voltage substation and switchyard would not exceed 35 feet in height. Although, due to the low activity index for both species, and all bat species in the Boulder Brush Corridor, it can be concluded that the potential effects of the Boulder Brush Facilities on the meta-community of bats in the region, would be negligible.

All of the structures on Boulder Brush would be static and since bats use echolocation to identify and avoid objects, it is unlikely the Boulder Brush Facilities would result in collision or electrocution impacts. Further, potential impacts from electrocution to individual bats would not result in the greater population of any bat species known to occur on the Boulder Brush Corridor to drop below self-sustaining levels.

Regardless, in order to comply with the USFWS Land-Based Wind Energy Guidelines (see Section 2.1.5), Tier 4 post-construction studies will be conducted to estimate mortality rates and ensure impacts to individual bats are at a minimum. These studies are part of standard Bird and Bat Conservation Strategy (BBCS) that would be negotiated with the USFWS and direct mortality monitoring of all relenvant components of the project.

Golden Eagle. The USGS biotelemetry data indicates that golden eagle use within the Project Area and the surrounding area is low compared to other areas in San Diego (Tracey et al. 2016, 2017). Figures 4-3a through 4-3n show only two eagles flying through the Project Site between 2015 and 2017. These eagles did not stop on site and the timing of their flight patterns indicate they did not spend more than 15 to 30 minutes flying over the Project Site. 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, therefore the chance for electrocution is low.



### 5.5.2 Indirect Impacts to Habitat Connectivity and Wildlife Corridors

### **Temporary Indirect Impacts**

**Impact WLC-2:** Temporary Indirect Impacts to Habitat Connectivity and Wildlife Corridors (Boulder Brush Corridor)

As discussed in Section 5.5.1.2, Permanent Direct Impacts, the Boulder Brush Corridor functions as part of a large habitat block, and the Boulder Brush Facilities would not have any direct impacts on habitat linkages or movement corridors. However, wildlife movement through the Project Area may be indirectly impacted by development (**Impact WLC-2**). 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): increased human access, vehicle collisions, 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 wildlife movement. These potential impacts are described below.

**Increased Human Access**. Construction activities can deter wildlife from using habitat areas near the development footprint and increase the potential for vehicle collisions. Project construction would likely take place during the day and would not affect wildlife species such as mammals that are most active in evenings and at night. Wildlife species such as birds, rabbits, and lizards are active in the day, but use a variety of habitats and could continue using other areas within and adjacent to the Boulder Brush Corridor for wildlife movement.

**Pests or Exotic Species.** Trash from construction-related activities could attract invasive predators such as ravens and coyotes that could impact the wildlife species in the Project Site.

**Increasing Noise and/or Nighttime Lighting.** Some localized security-related lighting may be required during construction. Construction lighting would conform to County of San Diego outdoor lighting requirements; therefore, lighting associated with the Project is not expected to result in significant impacts to wildlife movement related to lighting.

Project construction would result in noise and ground vibrations through the use of mechanized equipment and increased traffic and are described in more detail in Section 5.1.1. Noise would most likely only be a disturbance to those species that are active during the day, since noise levels are less at night. Lighting associated with possible nighttime work would be limited to vehicle deliveries and not expected to affect adjacent habitat for wildlife species. Most wildlife species that would use the area as a habitat corridor are nocturnal, and, therefore, would not be impacted while



foraging and moving at night. Noise pollution during construction is not anticipated to hamper breeding of any special-status species.

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

The significance determination for these potential impacts is described in Section 9.2.4 of this Report.

### **Permanent Indirect Impacts**

Impact WLC-3: Permanent Indirect Impacts to Habitat Connectivity and Wildlife Corridors

There are potential permanent indirect impacts to habitat connectivity and wildlife corridors (**Impact WLC-3**). 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): 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 wildlife movement. Each of these potential indirect impacts is discussed below.

**Increased Human Access**. The effects of increased human access on special-status wildlife are similar to what is described in Section 5.1.1 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 development footprint. O&M activities are very limited on Boulder Brush and the potential for vehicle collisions is low.

**Pests or Exotic Species.** The effects of pests or exotic species would be the same as is discussed in Section 5.3 for special-status wildlife species.

**Increasing Noise and/or Nighttime Lighting**. For the Boulder Brush Facilities, nighttime maintenance activities are not expected to occur more than once per year, the safety lighting inside the fence would normally be turned off. Some of the perimeter lighting in both facilities will remain on all night for safety purposes. All lighting would be shielded and directed downward to minimize the potential for glare or spillover onto adjacent properties.

Noise impacts to wildlife are complex and depend on variety of factors, including the type of bird, type of noise impact and how far the sound travels in a particular environment (Caltrans 2016). Caltrans (2016) describes the use of 60 A-weighted decibel (dBA) as a noise level for traffic that would begin to raise concerns about the potential masking of communication sounds between



birds, but the report goes on to further explain that the use of a single noise level threshold may be unnecessarily restrictive. Using a specific dBA threshold may not be appropriate to determine noise impacts on birds; however, data shows that birds can tolerate certain levels of noise below 110 dBA without having permanent hearing damage or and permanent threshold shifts (hearing loss), and continuous noise levels below 93 dBA are unlikely to cause temporary threshold shifts in birds (Caltrans 2016). At further distances from the noise (beyond the 93 dBA), Caltrans' model shows that there is little to no additional masking of communication signals.

Boulder Brush Facilities implementation and operation would create stationary noise sources (Appendix G to the EIR (*Acoustical Analysis Report for the Campo Wind Project with Boulder Brush Facilities*)). These sources would include the substation and switchyard, gen-tie line, and maintenance and inspection activities. Boulder Brush Facilities would be unmanned and 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. The Boulder Brush Facilities would feature two 150 kW emergency generators: one at the high-voltage substation and one at the switchyard. The noise from the generators is negligible; for example, at 15,000 feet, the expected one-hour noise exposure level would be less than 10 dBA. Aboveground electrical transmission lines associated with the Boulder Brush Facilities may produce corona during normal operation, but even under "foul" weather conditions that would moisten or wet the conductor surfaces, the resulting noise would only be audible at very close distances and thus not result in an adverse effect.

The significance determination for these potential impacts is described in Section 9.2.4 of this Report.

# 5.5.2 Campo Wind Facilities

The significance of these potential impacts was determined through application of the County's Significance Guidelines, described in Section 9.1.

### 5.5.2.1 Direct Impacts to Habitat Connectivity and Wildlife Corridors

### **Temporary Direct Impacts**

**Impact WLC-A:** Temporary Direct Impacts to Habitat Connectivity and Wildlife Corridors for Campo Corridor

There are temporary direct impacts associated with the Campo Wind Facilities development footprint. Temporary construction-related, direct impacts to habitat connectivity and wildlife corridors would primarily result from construction activities. 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. These potential impacts could affect wildlife movement through the area by temporarily cutting off access routes for foraging, mating and territories as well as the potential for being trapped in open trenches, and result in vehicle collisions from construction traffic (**Impact WLC-A**).

The significance determination for these potential impacts is described in Section 9.2.1 of this Report.

### **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. See Section 4.8, Habitat Connectivity and Wildlife Corridors, for a detailed discussion regarding habitat connectivity and wildlife corridors. Although the Campo Wind Facilities are included within a Core Wildlife Area, defined by the County based on its size and the surrounding undeveloped land, the area does not serve as a defined wildlife corridor or regional linkage, or other topographical features which confine wildlife movement. The Campo Corridor is open with occasional roads, residences and other buildings. Although construction of the Campo Wind Facilities would impact areas where wildlife may generally move through, it is not anticipated to hinder wildlife movement through the surrounding undeveloped landscapes. Therefore, installation of the Campo Wind Facilities is not anticipated to constrain a wildlife movement corridor within the region, particularly for terrestrial species. Impacts related to collisions and electrocution from resident or migratory birds and bats are described in Section 5.3 as well as below.

### **Impact W-D** Impacts to Wildlife Species from Collisions and Electrocution

Avian. There are potential impacts from avian collisions with turbines or towers and electrocution by transmission lines (gen-tie) (**Impact W-D**). Birds can collide with structures during migration or hunting/foraging activities.

*Bats*. The abundance of bats adjacent to the Campo Corridor is low when compared to other habitat types and regions. Thus, most species of bats are at minimal risk of adverse encounters with wind turbines. Direct impacts to bats could result in mortality or injury due to collisions at wind turbines.

As described in Section 4.8, 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.



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.

Golden Eagle. The USGS biotelemetry data indicates that golden eagle use within the Project Site and the surrounding area is low compared to other areas in San Diego (Tracey et al. 2016, 2017). During the 30-minute point-count surveys, only one juvenile golden eagle was detected on April 11, 2019, for 2 minutes. Single juvenile golden eagles were also detected during the all-day eagle surveys on October 6 and October 8, 2018. Additionally, eight golden eagles were detected between November 2017 and October 2018 on seven occasions for a total of 13 minutes (Figure 4-2 series). In total, as of September 2019, eagles were observed on site for approximately 15 of over 131,600 minutes during the 2017-2019 all-day eagle surveys and avian point-count surveys.

Based on the USGS telemetry data, as shown in Figures 4-4a through 4-4l, 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, combined with the low number of observations during the 2017-2019 surveys, 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; therefore, the chance for electrocution and collision is low.

# 5.5.2.2 Indirect Impacts to Habitat Connectivity and Wildlife Corridors

### **Temporary Indirect Impacts**

**Impact WLC-B:** Temporary Indirect Impacts to Habitat Connectivity and Wildlife Corridors (Campo Corridor)

As discussed in Section 5.5.2.2, Permanent Direct Impacts, the Campo Corridor functions as part of a large habitat block, and the Campo Wind Facilities would not have any direct impacts on habitat linkages or movement corridors, particularly for terrestrial species. However, wildlife movement through the Project Area may be indirectly impacted by development (**Impact WLC-B**). 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): 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 wildlife movement. These potential impacts are described below.

**Increased Human Access**. Construction activities can deter wildlife from using habitat areas near the development footprint and increase the potential for vehicle collisions. Project construction



would likely take place during the day and would not affect wildlife species such as mammals that are most active in evenings and at night. Wildlife species such as birds, rabbits, and lizards are active in the day, but use a variety of habitats and could continue using other areas within and adjacent to the Campo Corridor for wildlife movement.

**Pests or Exotic Species.** Trash from construction-related activities could attract invasive predators such as ravens and coyotes that could impact the wildlife species in the Project Site.

**Increasing Noise and/or Nighttime Lighting.** No nighttime lighting is proposed for the Campo Wind Facilities during construction (see BMPs listed in Table 5-3).

Construction-related noise and vibration could occur from equipment used during site preparation and grading, including vegetation clearing, and construction of the Project. Construction noise and vibration levels would vary from hour-to-hour and day-to-day, depending on the equipment in use, the operations being performed, and the distance between the source and receptor. Construction would occur during the day, and no construction is anticipated to take place at night. Increased noise and vibration can affect breeding behaviors in birds, mammals, reptiles, amphibians, and other species that use vocal methods for communication. Increased vibration can collapse small mammal, reptile, or amphibian burrows if they are located close to the construction equipment.

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

The significance determination for these potential impacts is described in Section 9.2.4 of this Report.

### **Permanent Indirect Impacts**

**Impact WLC-C:** Permanent Indirect Impacts to Habitat Connectivity and Wildlife Corridors

There are potential permanent indirect impacts to habitat connectivity and wildlife corridors (**Impact WLC-C**). 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): increased human access, vehicle collisions, 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 wildlife movement. Each of these potential indirect impacts is discussed below.

**Increased Human Access**. The effects of increased human access on special-status wildlife are similar to what is described in Section 5.1.1 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 development footprint. The O&M Facility will have full-time employees that could result in increased vehicle collisions.

**Pests or Exotic Species.** The effects of pests or exotic species would be the same as is discussed in Section 5.3 for special-status wildlife species.

**Increasing Noise and/or Nighttime Lighting**. For the Campo Wind Facilities, operations-related lighting is limited to (1) restricted exterior lighting installed on turbines for Federal Aviation Administration aviation warning lights and (2) permanent, directional security lights installed to provide adequate illumination around the collector substation and O&M building. All lighting would be shielded and directed downward to minimize the potential for glare or spillover onto adjacent properties.

Noise impacts to wildlife are complex and depend on variety of factors, including the type of bird, type of noise impact and how far the sound travels in a particular environment (Caltrans 2016). Caltrans (2016) describes the use of 60 A-weighted decibel (dBA) as a noise level for traffic that would begin to raise concerns about the potential masking of communication sounds between birds, but the report goes on to further explain that the use of a single noise level threshold may be unnecessarily restrictive. Using a specific dBA threshold may not be appropriate to determine noise impacts on birds; however, data shows that birds can tolerate certain levels of noise below 110 dBA without having permanent hearing damage or and permanent threshold shifts (hearing loss), and continuous noise levels below 93 dBA are unlikely to cause temporary threshold shifts in birds (Caltrans 2016). At further distances from the noise (beyond the 93 dBA), Caltrans' model shows that there is little to no additional masking of communication signals.

Campo Wind Facilities implementation and operation would create stationary noise sources on the Reservation. These sources would include the wind turbines, O&M Facility, Project collector substation, gen-tie lines, and maintenance and inspection activities. Campo Wind Facilities would employ approximately 10 to 12 full-time employees, generating up to 24 daily two-way trips, 7 days per week. While these activities would increase noise levels immediately adjacent to the access road during vehicle pass-bys, these events would not result in a substantial increase in ambient noise. The O&M facility could result in noise impacts during the summer months when rooftop air-cooled condenser units are used. At peak use, the maximum estimated noise levels produced are less than 48 dBA  $L_{eq}$  at approximately 200 feet from the building. The collector substation, which would feature a single 35 kV / 230 kV transformer (for purposes of this analysis, a continuous source of noise emission as compared to other ancillary systems and equipment at this site that may only produce noise intermittently). At a source-to-receptor distance of at least 300 feet from this



transformer, the expected sound pressure level would be less than  $48 \, dBA \, L_{eq.}$  The On-Reservation gen-tie line associated with the Boulder Brush Facilities may produce corona during normal operation, but even under foul weather conditions that would moisten or wet the conductor surfaces, the resulting noise would only be audible at very close distances and thus not result in an adverse effect.

Based on the noise contour modeling in Appendix G to the EIR (*Acoustical Analysis Report for the Campo Wind Project with Boulder Brush Facilities*), the operational noise levels at 60 dBA range from 300 feet to 1,800 feet from the turbine locations, varying with average hub-height wind speed as received by the turbines.

The significance determination for these potential impacts is described in section 9.2.4 of this report.



### 6 SPECIAL-STATUS SPECIES

# 6.1 Guidelines for the Determination of Significance

The County's Guidelines for Determining Significance (County of San Diego 2010b) that follow are based on the criteria in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) and were used to analyze potential direct and indirect impacts to biological resources. The significance criteria include analysis of whether:

- Guideline 4.1: 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 state 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 to August 15
Coastal California gnatcatcher	February 15 to August 31



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

# 6.2 Analysis of Project Effects

# 6.2.1 Project Effects Relevant to Guideline 4.1.A (Federally Listed and State-Listed Species)

### **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.

Impact W-5: Permanent Direct Impacts to 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 butterfly was observed once in the southwest portion of the Boulder Brush Corridor during the 2019 focused surveys (see Section 4.6.1) (Figure 4-6). Dudek modeled habitat in order to estimate potentially occupied areas within the Boulder Brush Corridor (see Section 4.6.1). There are impacts to 54.8 acres of Quino checkerspot butterfly habitat (Figure 5-3), a portion of which is considered occupied based on the 2019 Quino checkerspot butterfly observations. These permanent direct impacts to would be mitigated to **less than significant** through implementation of mitigation measure **M-BI-1**, which describes the Section 7 consultation process with the USFWS, off-site mitigation for permanent impacts to Quino checkerspot butterfly habitat, avoidance of hilltopping habitat, fencing and signage around occupied Quino checkerspot butterfly habitat, and working in suitable habitat areas when the adult and larval activity is low. The full text of this mitigation measure is presented in Section 6.4.1 of this Report.

### **Campo Wind Facilities**

There are no federally or state-listed plants within the Campo Corridor or limits of grading; therefore, there are no permanent direct impacts to federally or state-listed plants.



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

Quino checkerspot butterfly is the only known federally or state-listed 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.

Dudek modeled habitat in order to estimate potentially occupied areas within the Campo Corridor (see Section 4.6.2). Campo Wind Facilities would result in direct impacts to 272.8 acres of potentially occupied Quino checkerspot butterfly habitat (portions of which are considered occupied based on 2010 Quino checkerspot butterfly observations), which would be significant, absent mitigation (**Impact W-A**). These permanent direct impacts to would be mitigated to **less than significant** through implementation of **M-BI-A**, the Quino Checkerspot Butterfly-Specific Avoidance, Minimization mitigation measure, which describes the Section 7 consultation process with the USFWS, off-site mitigation for permanent impacts to Quino checkerspot butterfly habitat, and fencing and signage around occupied Quino checkerspot butterfly habitat. The full text of this mitigation measure is presented in Section 6.4.2 of this Report.

# 6.2.2 Project Effects Relevant to Guideline 4.1.B (County-Designated Sensitive Species)

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

**Boulder Brush Facilities** 

**Impact SP-1:** Temporary Direct Impacts to Special-Status Plant Species

Temporary direct impacts to County List A and B plant species are considered permanent impacts because the plants will be lost during grading activities and the Boulder Brush Corridor will not be replanted with these species (Table 5-2, Summary of Direct Impacts to Special-Status Plant Species; Figure 5-1 series). Additionally, clearing, trampling, or grading of special-status plants outside of designated construction zones could occur in the absence of avoidance and mitigation measures. These potential temporary direct impacts to County List A and B plant species would be significant, absent mitigation (**Impact SP-1**). These temporary direct impacts would be mitigated to **less than significant** through implementation of Mitigation Measure **M-BI-2** (biological monitoring) and **M-BI-3** (temporary construction flagging/fencing) and **M-BI-4** (SWPPP BMPs, including restrictions on plantings, temporary equipment staging and storage, and construction vehicle speed limits). These



mitigation measures would ensure that construction does not occur outside of the Boulder Brush Facilities impact areas resulting in unauthorized impacts (**M-BI-2** and **M-BI-3**), and that best management practices are implemented to prevent construction related impacts such as the spread of invasive plant species (**M-BI-4**). With implementation of these measures, temporary direct impacts resulting from construction would be **less than significant**. The full text of mitigation measures is presented in Section 6.4.1 of this Report.

### **Impact SP-2:** Permanent Direct Impacts to Special-Status Plant Species

The Boulder Brush Facilities would result in the loss of the following 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 (Table 6-1; Figure 5-1 series) (Impact SP-2). Impacts to County List A and B species would be mitigated through the preservation of suitable habitat and populations of each species per County requirements. Impacts to County List A species will be mitigated at a 2:1 mitigation to impact ratio for individuals while County List B species will be mitigated at a 1:1 ratio for individuals (Table 6-1) (M-BI-5). Since none of the County List A species proposed for impact are state or federallylisted, and are relatively common throughout the region, a mitigation ratio of 2:1, rather than 3:1, is appropriate to mitigate for impacts to these species. Surveys will be conducted to ensure that the mitigation site contains adequate populations of each plant species. Additionally, the 2.6-acre area within the Boulder Brush Facilities that was not surveyed during the 2017/2018 surveys shall be surveyed during the appropriate spring and summer pass to determine if additional rare plants are present (M-BI-5). With implementation of this measure, permanent direct impacts resulting from the Boulder Brush Facilities would be less than significant. The full text of mitigation measures is presented in Section 6.4.1 of this Report.

Table 6-1 Summary of Direct Impacts to Special-Status Plants Species On Private Lands

Species	Regulatory Status: Federal/State//CRPR	Impacts to Number of Individuals	Mitigation Ratio	Individuals Preserved		
County List A						
Jacumba milk-vetch (Astragalus douglasii var. perstrictus)	None/None/CRPR 1B.2	111	2:1	222		
Southern jewelflower (Streptanthus campestris)	None/None/CRPR 1B.3	20	2:1	40		
Tecate tarplant (Deinandra floribunda)	None/None/CRPR 1B.2	61	2:1	122		

Table 6-1 Summary of Direct Impacts to Special-Status Plants Species On Private Lands

Species	Regulatory Status: Federal/State//CRPR	Impacts to Number of Individuals	Mitigation Ratio	Individuals Preserved		
County List B						
Desert beauty (Linanthus bellus)	None/None/CRPR 2B.1	1,308	1:1	1,308		
Sticky geraea (Geraea viscida)	None/None/CRPR 2B.2	203	1:1	203		
County List D						
Colorado Desert larkspur (Delphinium parishii ssp. subglobosum)	None/None/CRPR 4.3	46	Habitat Based	N/A		

#### 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)

### Campo Wind Facilities

### **Impact SP-A:** Permanent Direct Impacts to Special-Status Plant Species

The Campo Wind Facilities would likely result in the loss of special-status plant species (**Impact SP-A**), 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**.

### **Special-Status Wildlife Species (County Group 1 or State SSC)**

#### **Boulder Brush Facilities**

### **Impact W-1:** Temporary Direct Impacts to Habitat for Special-Status Wildlife Species

Temporary direct impacts to special-status wildlife species were quantified by comparing the development footprint with suitable habitat for wildlife species. Loss of special-status wildlife



species (County Group 1 or state SSC animals), including individual amphibians, reptiles, small mammals, and their suitable habitat, from construction-related activities would result in temporary direct impacts that would be significant (**Impact W-1**). The Boulder Brush Facilities would include the following mitigation measures: biological monitoring to avoid unintentional impacts to species and habitat (**M-BI-2**); temporary flagging or fencing of construction limits to prevent unauthorized impacts (**M-BI-3**); implementation of SWPPP BMPs, including restrictions on plantings, temporary equipment staging and storage, and construction vehicle speed limits (**M-BI-4**); avoidance by preconstruction surveys for nesting birds and setbacks (**M-BI-6**); and replanting temporarily impacted areas with native vegetation (**M-BI-7**). However, temporary impacts to vegetation communities are still considered permanent impacts (see **Impact W-2**). Therefore, temporary direct impacts to County Group 1 species or state SSC would be **less than significant** with implementation of these mitigation measures. The full text of these mitigation measures is presented in Section 6.4.1 of this Report.

#### **Impact W-2:** Permanent Direct Impacts to Habitat for Special-Status Wildlife Species

Permanent direct impacts to special-status wildlife species were quantified by comparing the development footprint with suitable habitat for wildlife species observed or those that have a high potential to occur within the Boulder Brush Corridor (Table 5-5). 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 (Impact W-2). 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. However, since the Boulder Brush Facilities would result in impacts to more than 5% of modeled habitat for each of the species, impacts to suitable habitat within the development footprint are considered potentially significant. Implementation of M-BI-5 would provide for the preservation of suitable habitat for all special-status species which are known to occur, or which have a high potential to occur, through the long-term conservation of similar habitat and would have a beneficial impact to these species. Therefore, permanent direct impacts to habitat for special-status wildlife species would be less than significant with implementation of mitigation measures. The full text of the mitigation measure is presented in Section 6.4.1 of this Report.



#### Impact W-3 and W-4: Permanent Direct Impacts to Special-Status Wildlife Species

**Impact W-3:** Impacts to Active Nests

As described in Section 5.3.1.2, if any active nests or the young of nesting special-status bird species are impacted through vegetation removal and direct grading, these impacts would be significant, absent mitigation, (**Impact W-3**). It is recommended that clearing of vegetation occur outside of the typical nesting period for most bird species and raptors (i.e., outside the period of February 1–September 1 and as early as January 1 for some raptor species) to limit impacts to nesting birds and raptors. If clearing is required within the nesting period, a nesting bird survey would be conducted and buffers required if nesting birds are identified, as described in **M-BI-6** (preconstruction surveys for nesting birds). With this mitigation measure, impacts to nesting birds and raptors and other sensitive status species would be less than significant. Therefore, impacts to active nests or the young of nesting special-status bird species would be **less than significant** with implementation of mitigation. The full text of the mitigation measure is presented in Section 6.4.1 of this Report.

#### Impact W-4 Impacts to Wildlife Species from Collisions and Electrocution

Migrating bird species would be at risk for electrocution from the overhead power lines and/or collisions with poles and structures (**Impact W-4**). The Boulder Brush Facilities would ensure that all transmission towers and lines are designed to conform to Avian Power Line Interaction Committee (APLIC) standards (**M-BI-8**). The Boulder Brush Facilities shall implement recommendations by the APLIC (2006), 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 towers 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-cm of 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 to help avoid collisions. In addition, the Boulder Brush Facilities will be required to move any dead carcasses, which may attract carrion-consuming birds of prey to the Boulder Brush Facilities (**M-BI-9**). Therefore, impacts to wildlife species from collisions and electrocution would be **less than significant** with implementation of mitigation. The full text of these mitigation measures is presented in Section 6.4.1 of this Report.

*Bats*. All of the structures on Boulder Brush would be static and since bats use echolocation to identify and avoid objects, it is unlikely the Boulder Brush Facilities would result in collision or electrocution impacts. Potential impacts from electrocution to individual bats would not result in

the greater population of any bat species known to occur on the Boulder Brush Corridor to drop below self-sustaining levels; therefore, impacts to bats are **less than significant**.

Golden Eagle. Golden eagle use in the Boulder Brush Corridor and surrounding area is described in Sections 4.6.1 and 5.3.1. 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 APLIC standards as mentioned above. Therefore, the chance for collisions/electrocution is very low and potential impacts would be **less than significant**.

#### Campo Wind Facilities

#### **Impact W-B:** Permanent Direct Impacts to Habitat for Special-Status Wildlife Species

Permanent direct impacts to special-status wildlife species were quantified by comparing the development footprint with suitable habitat for wildlife species observed or those that have a high potential to occur within the Campo Corridor (Table 5-6). Implementation of the Campo Wind 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, long-eared owl, northern harrier, prairie falcon, loggerhead shrike, yellow warbler, San Diego black-tailed jackrabbit, and San Diego desert woodrat (**Impact W-B**). Impacts to these species would be **less than significant** given the large amount of habitat within the region. 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 in the region.

#### **Impact W-C:** Impacts to Active Nests

As described in Section 5.3.1.2, if any active nests or the young of nesting special-status bird species protected under the MBTA are impacted through direct grading, these impacts would be significant, absent mitigation (**Impact W-C**). It is recommended that clearing of vegetation occur outside of the typical nesting period for most bird species and raptors (i.e., outside the period of February 1– September 1 and as early as January 1 for some raptor species) to limit impacts to nesting birds and raptors. If clearing is required within the nesting period, a nesting bird survey would be conducted and buffers required if nesting birds are identified, as described in the Avian-Specific Avoidance, Minimization, and Mitigation Measures (**M-BI-B**). With this mitigation measure, impacts to nesting birds and raptors and other sensitive status species would be less than significant. Therefore, impacts

to active nests or the young of nesting special-status bird species would be **less than significant**. The full text of this mitigation measure is presented in Section 6.4.2 of this Report.

#### **Impact W-D** Impacts to Wildlife Species from Collisions and Electrocution

Birds would be at risk for collisions with the turbines and towers and electrocution by transmission lines (gen-tie); these impacts would be significant, absent mitigation (**Impact W-D**). Implementation of **M-BI-B**, the Avian-Specific Avoidance, Minimization, and Mitigation Measures (**M-BI-B**), which recommends implementing APLIC standards, preparing a Bird and Bat Conservation Strategy, and removing carcasses within the development site to reduce increased attraction of carrion-consuming birds of prey to the turbine and tower areas. Therefore, impacts collisions would be **less than significant**. The full text of this mitigation measure is presented in Section 6.4.2 of this Report.

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, and **less than significant**.

# 6.2.3 Project Effects Relevant to Guideline 4.1.C (County Designated Special-Status Species)

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

#### **Boulder Brush Facilities**

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 are summarized in Table 5-2. Thus, impacts to County List C and D species would be **less than significant**. Although impacts to these species are not considered significant per the County Guidelines because of the low number of individuals being impacted, suitable habitat for these species would be conserved within an off-site preserve (**M-BI-5**).

#### Campo Wind Facilities

**Impact SP-A**: Permanent Direct Impacts to Special-Status Plant Species

The Campo Wind Facilities would likely result in the loss of special-status plant species (**Impact SP-A**), 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. There are no federally listed plants on Campo or that have potential to occur. Impacts to non-federally listed plants on the Reservation (e.g., County List C or D species) are not subject to the mitigation requirements in the County guidelines. Therefore, no mitigation for impacts to individual special status plant species would be implemented. Permanent direct impacts to County special-status plants could be **significant and unavoidable**.

#### **Special-Status Wildlife Species (County Group 2 Species)**

#### **Boulder Brush Facilities**

**Impact W-2:** Permanent Direct Impacts to Habitat for Special-Status Wildlife Species

As summarized in Section 4.6.1, 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 5-1 series shows the Boulder Brush Facilities 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 state SSCs: San Diegan tiger whiptail, Blainville's horned lizard, coast patch-nosed snake, San Diego black-tailed jackrabbit, and San Diego desert woodrat. These species are discussed in Section 6.2.2.

Loss from development of the Boulder Brush Facilities of Group 2 special-status wildlife species that are not state SSC animals would be less than significant, because these species occur within a variety of habitats and through a wide geographic, topographic, and elevation ranges where there is an abundance of these species in the region. Although impacts to Group 2 species would be **less than significant**, mitigation measure **M-BI-5** ensures that suitable habitat for these species would be conserved off-site, which would be beneficial to Group 2 special-status wildlife species.

#### Campo Wind Facilities

**Impact W-B:** Permanent Direct Impacts to Habitat for Special-Status Wildlife Species

As summarized in Section 4.6.2, 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 from development of the Campo Wind Facilities of Group 2 special-status wildlife species that are not state SSC animals



would be **less than significant**, because these species occur within a variety of habitats and through a wide geographic, topographic, and elevation ranges where there is an abundance of these species in the region.

#### 6.2.4 Project Effects Relevant to Guideline 4.1.D (Arroyo Toad)

No arroyo toads (*Anaxyrus californicus*) have been incidentally detected in either the Boulder Brush or Campo Corridors, nor are they expected to occur due to the lack of suitable habitat. Arroyo toads are not known from this area and have not been documented in the Live Oak Springs and Sombrero Peak quadrangles (CDFW 2018a). Although arroyo toad is known to occur within the surrounding quadrangles (CDFW 2018a), the Project Site lacks suitable habitat for this species, such as perennial or intermittent stream channels that support regular flows. For Boulder Brush Facilities, the closest California Natural Diversity Database occurrence is 8.5 miles west along Kitchen Creek within Fred Canyon and the USFWS occurrence is approximately 10.2 miles southwest along Cottonwood Creek of the Boulder Brush Corridor (CDFW 2018a; USFWS 2018a). Focused arroyo toad surveys conducted on the Campo Indian Reservation located south of the Boulder Brush Facilities site in 2010 were negative (AECOM 2010b). For Campo Wind Facilities, the closest known arroyo toad occurrences are located approximately 5.5 miles west of the Campo Corridor in the Cottonwood Creek area (USFWS 2018), a different watershed. There are no records of arroyo toad east of this location (USFWS 2018; CDFW 2018a). Surveys conducted for the 2010 BSA were negative (AECOM 2012).

#### 6.2.5 Project Effects Relevant to Guideline 4.1.E (Golden Eagle)

#### **Boulder Brush Facilities**

A golden eagle was observed flying over the Boulder Brush Corridor once during the 2018 Quino checkerspot butterfly surveys. No active nests are known to occur within 4,000 feet of the Boulder Brush Corridor. The closest suitable 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). The nearest active golden eagle nest (e.g., nesting behavior documented) to the development footprint is approximately 5.5 miles east of the Project Site 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, there is no impact to nesting habitat within 4,000 feet of the Boulder Brush Corridor. Regardless, possible foraging habitat for golden eagle would

include 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 potential acres of foraging habitat, of which 69.8 acres would be temporarily or permanently impacted by the Boulder Brush Facilities. 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 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 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 or electrocution related to the Boulder Brush Facilities.

## **Campo Wind Facilities**

Eight golden eagles were observed flying over the Campo Corridor during the 2018 eagle point count surveys (Figure 4-2 series). There are no golden eagle nests within the Campo Corridor, nor within 4,000 feet of the development footprint. Therefore, construction and implementation of the Campo Wind Facilities would not result in direct permanent impacts to golden eagle nests, given the distance between nest sites and the development footprint. The nearest active golden eagle nest (e.g., nesting behavior documented) to the development footprint is approximately 7 miles east of the Project Site in the Carrizo Gorge area of the Jacumba Mountains. As shown in Figures 4-4a through 4-4n, 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. Golden eagle use on site is infrequent, and the chance for electrocution and collisions is low; therefore, impacts to golden eagle would be **less than significant**.

#### 6.2.6 Project Effects Relevant to Guideline 4.1.F (Raptor Foraging Habitat)

#### **Boulder Brush Facilities**

**Impact W-2:** Permanent Direct Impacts to Habitat for Special-Status Wildlife Species



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. The Boulder Brush Facilities would result in impacts to more than 5% of the raptor foraging habitat within the entire Boulder Brush Boundary; however, the amount of impact (130.8 acres; 7%) is relatively small compared to available habitat in the overall Boulder Brush Boundary. Per the County guidelines, impacts to raptor foraging habitat would be a significant impact, because more than 5% of the raptor foraging habitat within the Boulder Brush Boundary would be impacted (Impact W-2). Impacts to raptor foraging habitat would be mitigated to less than significant through off-site preservation of suitable habitat for foraging raptors (M-BI-5). The full text of this mitigation measure is presented in Section 6.4.1 of this Report.

#### **Campo Wind Facilities**

#### **Impact W-B:** Permanent Direct Impacts to Habitat for Special-Status Wildlife Species

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: big sagebrush scrub (including disturbed), 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.

The Campo Wind Facilities would result in impacts to 4.9% of the raptor foraging habitat within the entire Reservation Boundary (785.7 acres; 5% of the Reservation Boundary). Per the County guidelines, impacts to raptor foraging habitat would be a **less than significant** because less than 5% of the raptor foraging habitat on the Reservation would be impacted.

#### 6.2.7 Project Effects Relevant to Guideline 4.1.G (Core Wildlife Area)

As discussed in 5.5.1.2, the Boulder Brush Boundary and Reservation Boundary are included within a Core Wildlife Area, as defined by the County. However, wildlife movement within the Project Area is not restricted to a specifically defined wildlife corridor. Wildlife can move throughout the



Project Site. Further, the Project boundaries are part of a larger contiguous area composed of private and public lands, which are mostly undeveloped and contribute to the Core Wildlife Area. The existing Tule Wind project is located east and north of the Boulder Brush Facilities 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.

Although construction of the Project would impact areas where wildlife may generally move through, it is not anticipated to hinder wildlife movement through the surrounding landscapes. Installation of the Project components is not anticipated to constrain a wildlife movement corridor within the region since the footprints of the turbines and electrical poles are small and provide easy access around/between them. Additionally, no fencing would be installed in large areas that might artificially constrain wildlife movement.

Therefore, the Project is not anticipated to impact long-term wildlife movement or viability within the development footprints or throughout the larger landscape. In addition, viable populations of special-status wildlife species are not limited to the development footprints alone (i.e., disturbed site area). As such, impacts to Core Wildlife Area would be **less than significant**.

#### 6.2.8 Project Effects Relevant to Guideline 4.1.H (Indirect Impacts)

**Special-Status Plant Species** 

**Boulder Brush Facilities** 

**Impact SP-3:** Temporary Indirect Impacts to Special-Status Plant Species

There are potential temporary indirect impacts to special-status plant species in the Boulder Brush Corridor (Impact SP-3). The indirect impacts analyzed in Section 5.2 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 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 special-status plant species and include generation of fugitive dust, the introduction of chemical pollutants (including herbicides), and alteration of the natural fire regime. Special-status plant species at the edge of the development footprint, including all seven special-status plant species observed within the Boulder Brush Corridor, could be impacted by potential temporary indirect impacts such as those previously listed (see Section 4.2 and descriptions in Section 5.2). Absent mitigation, these impacts would be significant. M-BI-2 (biological monitoring), M-BI-3



(temporary construction flagging and/or fencing), M-BI-4 (SWPPP), M-BI-10 (fugitive dust control), M-BI-11 (erosion and runoff control), and M-BI-12 (regulation of chemical pollutants) described in Section 6.4 would mitigate these impacts to less than significant. Regarding fire, the proposed vegetative fuel modification treatments and the use of metal poles will lower the risk for potential loss of the Boulder Brush Facilities. The high-voltage substation and switchyard sites will include contiguous fuel modification from 100 feet outside of the perimeter fence inward onto the pad area. The high-voltage substation and switchyard pad areas will be free of vegetation around all electrical equipment. These impacts would be reduced to less than significant because the measures would minimize the potential for unintentional loss of individuals during construction. The full text of the mitigation measures is presented in Section 6.4.1 of this Report.

#### **Impact SP-4:** Permanent Indirect Impacts to Special-Status Plant Species

Permanent indirect impacts could result from the proximity of the development footprint to special-status plants after construction. Permanent indirect impacts that could affect special-status plant species include generation of fugitive dust, unintentional spillover or drift of chemical pollutants, non-native invasive species, and alteration of the natural fire regime (Impact SP-4). Each of these potential indirect impacts is discussed in Section 5.2. Special-status plant species at the edge of the development footprint, including all six special-status plant species observed within the Boulder Brush Corridor, could be impacted by permanent indirect impacts such as those previously listed (see Section 4.2). Absent mitigation, these impacts would be significant. 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), would mitigate these impacts to less than significant by ensuring that the Project does not introduce pollutants or spread invasive plant species within and surrounding the development footprint. The full text of these mitigation measures is presented in Section 6.4.1 of this Report.

#### Campo Wind Facilities

#### **Impact SP-B:** Temporary Indirect Impacts to Special-Status Plant Species

Potential temporary indirect impacts to special-status plant species in the Campo Corridor would primarily result from construction activities and 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 (**Impact SP-B**). Special-status plant species that could occur within the Campo Corridor, but outside of the development footprint, could be impacted by potential temporary indirect impacts such as those previously listed (see descriptions in Section 5.2). Absent mitigation, these impacts would be significant. The incorporation of the BMPs



outlined in Table 5-3 and the General Avoidance and Minimization Measures (**M-BI-C**) reduce the impacts to **less than significant**. The full text of these mitigation measures is presented in Section 6.4.2 of this Report.

#### **Impact SP-C:** Permanent Indirect Impacts to Special-Status Plant Species

Permanent indirect impacts could result from the proximity of the development footprint to special-status plants after construction. Permanent indirect impacts that could affect special-status plant species include increased human access, introduction of pests or exotic species, altering natural drainage, increasing noise and/or nighttime lighting, and alteration of the natural fire regime (**Impact SP-C**). Each of these potential indirect impacts is discussed in Section 5.2. Special-status plant species that may occur at the edge of the development footprint could be impacted by permanent indirect impacts such as those previously listed. Absent mitigation, these impacts would be significant. The incorporation of the BMPs outlined in Table 5-3 and the General Avoidance and Minimization Measures (**M-BI-C**) reduce the impacts to **less than significant**. The full text of these mitigation measures is presented in Section 6.4.2 of this Report.

#### **Special-Status Wildlife Species**

#### **Boulder Brush Facilities**

#### **Impact W-6:** Temporary Indirect Impacts to Special-Status Wildlife Species

Temporary indirect impacts to avian foraging and wildlife access to foraging, nesting, or water resources would primarily result from construction activities limiting access to those resources (Impact W-6). Potential temporary indirect impacts could occur as a result of increased human access, vehicle collisions, 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 (see Section 5.3 for additional details). Absent mitigation, these impacts would be significant. Species potentially affected by such activities include loggerhead shrike, Cooper's hawk, Blainville's horned lizard, and other wildlife species that are on site during construction activities. Indirect impacts to sensitive bird species may occur if clearing of vegetation is conducted during the nesting season for migratory birds (February 15 through August 31) and raptors (January 15 through July 31). Implementation of M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging and/or fencing), M-BI-4 (SWPPP and construction vehicle speed limits), 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), and M-BI-13 (prevention of invasive species) would mitigate these impacts to **less than significant** because the mitigation would prevent construction impacts



beyond the development footprint and restore temporarily impacted areas. The full text of these mitigation measures is presented in Section 6.4.1 of this Report.

#### **Impact W-7:** Permanent Indirect Impacts to Special-Status Wildlife Species

Permanent indirect impacts to special-status wildlife species include increased human access, introduction of pests or exotic species, altering natural drainage, increasing noise and/or nighttime lighting, generation of fugitive dust, and alteration of the natural fire regime (Impact W-7). Absent mitigation, these impacts would be significant. 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), and M-BI-15 (access control) described in Section 6.4 would mitigate these impacts to less than significant.

#### Campo Wind Facilities

#### **Impact W-E:** Temporary Indirect Impacts to Special-Status Wildlife Species

Temporary indirect impacts to avian foraging and wildlife access to foraging, nesting, or water resources would primarily result from construction activities limiting access to those resources (**Impact W-E**). Potential temporary indirect impacts could occur as a result of increased human access, vehicle collisions, 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 (see Section 5.3 for additional details). Absent mitigation, these impacts would be significant. The incorporation of the BMPs outlined in Table 5-3 and the General Avoidance and Minimization Measures (**M-BI-C**) reduce the impacts to **less than significant**. The full text of these mitigation measures is presented in Section 6.4.2 of this Report.

#### Impact W-F: Permanent Indirect Impacts to Special-Status Wildlife Species

Permanent indirect impacts to special-status wildlife species include increased human access, vehicle collisions, 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 W-F**). Absent mitigation, these impacts would be significant. The incorporation of the BMPs outlined in Table 5-3 and the General Avoidance and Minimization Measures (**M-BI-C**) reduce the impacts to **less than significant**. The full text of these mitigation measures is presented in Section 6.4.2 of this Report.

#### 6.2.9 Project Effects Relevant to Guideline 4.1.I (Burrowing Owl)

As described in Attachments I-1 and I-2 to this Report, burrowing owl are not known to occur between the Jacumba Valley and Otay areas in San Diego County. Therefore, there are no impacts to occupied burrowing owl habitat.

#### 6.2.10 Project Effects Relevant to Guideline 4.1.J (Coastal Cactus Wren)

Coastal (San Diego) cactus wren (*Campylorhynchus brunneicapillus sandiegensis*) is not expected to occur within the Boulder Brush Corridor or Campo Corridor. Coastal cactus wren rely on cactus thickets at elevations below 1,500 feet (Unitt 2004). Both Boulder Brush and Campo Corridors are above this elevation range and there are no large patches of *Cylindropuntia* spp. or *Opuntia* spp. on site; however, there are scattered cacti throughout the scrub and chaparral. *C. brunneicapillus* (desert subspecies) was documented on the Campo Corridor (AECOM 2012); however, this species is not the coastal subspecies for which this guideline applies. Because the Project Site is outside of the range for the coastal (San Diego) cactus wren, there would be no impacts to occupied coastal cactus wren habitat.

#### 6.2.11 Project Effects Relevant to Guideline 4.1.K (Hermes Copper Butterfly)

The known range for Hermes copper butterfly is farther west toward Descanso, Jamul, and Potrero (CDFW 2018a). Additionally, no *Rhamnus crocea*, this species' host plant, was observed within the Boulder Brush Corridor. Therefore, there are no impacts to occupied Hermes copper butterfly habitat.

No *Rhamnus crocea*, this species' host plant, was observed within the Campo Corridor. Additionally, Hermes copper butterfly is not a federally protected species.

#### 6.2.12 Project Effects Relevant to Guideline 4.1.L (Sensitive Bird Nesting)

#### **Boulder Brush Facilities**

Direct impacts to trees could result in impacts to the nesting success of tree-nesting raptors (such as Cooper's hawk) as a result of the removal of potential nesting habitat. Nesting tree habitat within the Boulder Brush Corridor includes coast live oak woodland and southern arroyo willow riparian forest. The Boulder Brush Facilities would result in permanent impacts to 1.1 acres of tree-dominated vegetation (coast live oak woodland and southern arroyo willow riparian forest). There would also be temporary impacts to 4.9 acres of these vegetation types that would likely result in tree removal. As described above, temporary impacts 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 significant (**Impact W-2**). The loss of suitable nesting habitat would be



mitigated to **less than significant** through off-site preservation of suitable habitat for foraging raptors (**M-BI-5**). Temporary and permanent indirect impacts to nesting raptors (**Impact W-6** and **Impact W-7**) are discussed in Section 5.3.2, Indirect Impacts to Special-Status Wildlife Species, and Section 6.2.8.2, Special-Status Wildlife Species.

Due to lack of suitable habitat, least Bell's vireo, southwestern willow flycatcher, and light-footed clapper rail (*Rallus longirostris levipes*) are not expected to nest in the development footprint (see Attachment I-1); therefore, no impact to the nesting success of those 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.

#### **Campo Wind Facilities**

Direct impacts to trees could result in impacts to the nesting success of tree-nesting raptors (such as Cooper's hawk and long-eared owl) and ground-nesting raptors (such as prairie falcon) as a result of the removal of potential nesting habitat. The Campo Wind Facilities would result in permanent impacts to 21.55 acres of tree-dominated vegetation (coast live oak woodland habitats) and 21.97 acres of potential ground-nesting raptor habitat (emergent wetland and grasslands). Impacts to these species would be **less than significant** given the large amount of habitat within the region (**Impact W-B**). Impacts to nesting habitat on the Reservation are not subject to the mitigation requirements in the County guidelines. Temporary and permanent indirect impacts to nesting raptors (**Impact W-E** and **Impact W-F**) are discussed in Section 5.3, and Section 6.2.8, Special-Status Wildlife Species, and would be less than significant with implementation of mitigation measures **M-BI-C**.

Due to lack of suitable habitat and negative surveys for least Bell's vireo, southwestern willow flycatcher, and light-footed clapper rail (*Rallus longirostris levipes*) are not expected to nest in the development footprint (see Attachment I-2); therefore, no impact to the nesting success of those protected species would result. The Campo Corridor is outside of the range, or does not have suitable habitat, for burrowing owl, coastal California gnatcatcher or coastal cactus wren.

## 6.3 Cumulative Impact Analysis

Cumulative impacts are not assessed in this document, but are discussed in the EIR being prepared by the County for the Project. Cumulative impacts are also discussed in Section 2.3 of the EIR as well as the EIS being prepared by the BIA for the Campo Wind Project. For purposes of assessing cumulative impacts related to the Project, an appropriate geographic scope would include the Peninsular Ranges of the California floristic province, as defined by the Jepson Flora Project (2018).



### 6.4 Mitigation Measures and Design Considerations

#### 6.4.1 Boulder Brush Facilities

# M-BI-1 Implementation of USFWS-Issued Terms and Conditions for Quino Checkerspot Butterfly. All terms, and conditions, and Conservation Measures 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 (FWS-SD-10B0243-19F1536, dated January 16, 2020 and provided as Appendix P-1 to this EIR) shall be implemented. Terms and conditions shall apply to the federally listed species, the Quino checkerspot butterflythat may be impacted by the Project. Ratios for habitat-based mitigation shall has been determined during the Section 7 consultation process and are included below. 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.

The Conservation Measures as included in the Biological Opinion are as follows:

#### CM-1 Offsite Land Conservation

To offset loss of Quino habitat and protect the viability of Quino in the Project vicinity, the Applicant will acquire land at a minimum 1:1 ratio of conservation to direct and indirect impacts as defined in the biological assessment. The conservation site will be approved by the Service and will minimally be in escrow by the time operations commence (i.e., wind turbines are operational and sale of energy occurs per a power purchase agreement). Lands within the eastern San

Diego County vicinity (specifically in and around the Southeast San Diego and eastern Southwest San Diego Recovery Units) will be prioritized, and lands will be considered occupied following the definition of occupied habitat used in this analysis (i.e., within a 1 kilometer buffer of known Quino locations) or within 2 kilometers between known Quino clusters will be prioritized. First priority will be given to land within the Campo Core Occurrence Complex defined in the draft Quino recovery plan amendment (Service 2019).

As described in section 7.3.1 of the Draft EIR, pre-construction surveys for Quino host plants will be conducted during the spring and summer of 2020 within an approximately 2.6-acre portion of the Boulder Brush development footprint that has not been surveyed. If any Quino host plants are found, the Quino habitat model will be updated, and consultation will be reinitiated under which additional habitat acquisition maybe required.

Upon acquisition of the conservation site, the Applicant will prepare a Land Management Plan (LMP) for Service approval. The LMP must be provided and approved within 6 months of securing the mitigation site (i.e., completion of escrow). The LMP will minimally include the following components: goals, objectives, and strategies; vegetation management (mapping, targets, non-native plants, weed control, enhancements if any); wildlife and sensitive plant surveys (general inventory and Quino surveys); property management (access controls, roads, fire plan, cultural resource management, trash removal); communications, public involvement, scientific uses, and data sharing; program administration and reporting (LMP implementation, LMP review/revision); a Property Analysis Record (PAR) including administrative costs, contingency funds, and 3-year startup period funding. The proposed land manager will be given the opportunity to participate in development of the LMP, including the PAR. Funding of the LMP will include a long-term endowment intended to grow for 3 years prior to use and a short-term endowment intended to cover immediate management during the initial 3-year period.

#### CM-2 Limiting Impacts to Occupied Habitat

To prevent unnecessary intrusion into occupied Quino habitat, construction fencing and/or signage will be installed where impacts will occur immediately adjacent to Quino Focal Areas, defined as within a 200-meter radius around host plant concentrations or within 1 kilometer of known Quino observations.

Following construction, permanent visible markers will demarcate the border between Project facilities and Quino Focal Areas. Markers will be placed every 30 feet along the border, and signage will be placed every 300 feet or to the extent required, depending on the length of the border. A 5-foot buffer, cleared of vegetation, will be maintained between Project facilities and any Quino Focal Area. If operations and maintenance activities require disturbance in previously undisturbed areas within Quino Focal Areas, coordination with Service will be required prior to initiation of these activities.

A Project biologist(s) will be designated by the Applicant and approved by the Service for both sites, as well as the Tribe for work on the Reservation and by the County for work on Boulder Brush. The Campo Environmental Protection Agency will enforce the duties of the Project biologist for all work conducted on the Reservation. The Applicant will submit the names, documented experience, any relevant permit numbers, and resumes for the Project biologist(s) to Service and the Tribe for approval prior to initiation of construction. The Project biologist(s) will be responsible for the following:

- 1. Providing training to all construction workers;
- 2. 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;
- 3. Conducting a field review of the staking to be set by the professional surveyor, designating the limits of all construction activity prior to clearing, grubbing, or grading:
- 4. Regularly monitoring construction activities to verify that construction is proceeding in compliance with all permit requirements specific to biological resources;
- 5. Maintaining communication with the appropriate personnel (i.e., construction Project manager, and resident engineer) so that issues relating to biological resources are appropriately and lawfully managed; and
- 6. Reporting any noncompliance issues to the BIA, resident engineer, the Service, and the Tribe.

CM-3 Avoidance of Vehicle Strikes

To minimize the potential for vehicle collisions, vehicle speeds during construction and operations will not exceed 15 miles per hour (mph) from February 15 through May 15, when Quino are most likely to be in the adult stage and in flight. New Project access roads in Quino habitat will have 15 mph speed limit, and signs will be posted indicating no off highway vehicle (OHV) use.

#### CM-4 Revegetation of Temporary Impacts

Disturbed areas that are not required to be clear for operations and maintenance activities will be revegetated or stabilized using soil binders within 90 days of construction completion.

Revegetated areas will use native plant species found within adjacent habitats. Locally available seed will be used. Use of native vegetation will minimize intrusion by non-native species that may displace Quino host and nectar plants as well as alter native vegetation structure.

Revegetation will provide a minimum of 40 percent cover of native species within a 2 year time frame. If 40 percent cover of native species is not achieved within 2 years, adaptive management measures will be pursued until 40 percent cover of native species is achieved. This is the only success criterion required for revegetation of temporary impacts. So, it is unclear whether temporarily impacted areas will be successfully restored to Quino habitat.

To maximize benefits of revegetation for the Quino within Quino Focal Areas, the Applicant will coordinate with the Service to determine the appropriate seed mix once it is determined precisely where revegetation will occur. Seed mixes may include Quino host plants throughout revegetation area areas, Quino host plants beyond a predetermined buffer from ongoing Project impacts, or no Quino host plants to discourage Quino occupancy and minimize future impacts. The seed mix that most benefits Quino depends on the location of the restoration relative to specific Project operations (or non-Project related operations).

When the Campo Wind Facilities are decommissioned, a decommissioning plan will be prepared and implemented. The decommissioning plan will include revegetation of the previously-impacted areas. Soil will be revegetated with native plant species found within adjacent habitats and locally available seed will be used. By revegetating with native plants, suitable Quino habitat may be recovered within

the Project Area following decommissioning. Revegetation shall provide a minimum of 40 percent cover of plant species native to adjacent habitats within 2 years. If 40 percent cover of native species is not achieved within 2 years, adaptive management measures will be pursued until 40 percent cover of native species is achieved.

When the Bolder Brush facilities are decommissioned, soil will be stabilized and revegetated with plant species characteristic of native species within adjacent habitats. Locally available seed will be used.

#### CM-5 Weed Control

To minimize spread of non-native invasive plant species, no planting or seeding of invasive plant species [per the most recent version of the California Invasive Plant Council's (CIPC) California Invasive Plant Inventory for the Project region] will be permitted. The County will provide a list of County-approved plants for revegetation within Boulder Brush that will minimally comply with CIPC standards.

A weed management plan will be developed and approved by the Tribe prior to the commencement of construction activities. The Service will be given the opportunity to review a draft of the weed management plan, but the Tribe has ultimate approval authority for the weed control plan. The plan will include the following: (1) weed inventory and risk assessment; (2) identification of problem areas and necessary preventative measures; (3) annual surveys within the temporary impact areas to document weed patches for two years post construction; (4) success standards, such as temporarily impacted areas have no more than a 10 percent increase in weed species; adaptive management measures; and (6) reporting.

#### CM-6 Trash Control

To avoid attracting wildlife to the site, including potential Quino predators, fully covered trash receptacles that are animal-proof and weather-proof will be installed and used by the construction contractor(s) to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Littering will be prohibited, and trash will be removed from construction areas daily.

#### CM-7 Dust Control

Dust can impact Quino by reducing digestibility of host plants and blocking spiracles (breathing organs). Therefore, dust control measures will reduce impacts to Quino. The Applicant will develop a fugitive dust control plan in compliance with San Diego County Air Pollution Control Regulations to reduce particulate matter less than 10 microns (PM10) and fine particulate matter less than 2.5 microns (PM2.5) emissions during construction and decommissioning. The following dust control measures will be implemented:

- 1. All onsite unpaved roads will be effectively stabilized using soil stabilizers that can be determined to be as efficient, or more efficient, for fugitive dust control than California Air Resources Board-approved soil stabilizers, and will not increase any other environmental impacts including loss of vegetation;
- 2. All material excavated or graded shall be sufficiently watered to prevent excessive dust. Watering will occur as needed with complete coverage of disturbed areas;
- 3. All haul trucks hauling soil, sand, and other loose materials will be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions);
- 4. Soil loads will be kept below 18 inches of the freeboard of the truck;
- 5. Drop heights will be minimized when loaders dump soil into trucks; and
- 6. Traffic speeds on unpaved roads will be limited to 15 miles per hour.

#### CM-8 Fire Prevention

Although fire is a natural component of Quino habitat, artificially frequent fires can severely degrade habitat quality. Therefore, minimization of Project-related ignitions and spread of wildfires will benefit the Quino. In addition to fuel modification zones included in the Project, a Campo Wind Project Fire Protection Plan will be prepared and implemented in conjunction with development of the Project.

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 of San Diego'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, 15 mile per hour 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 earthmoving 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-3**.
- 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 a 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 (approximately 2.6 acres). If any special-status plants are found during the pre-construction surveys, the Applicant shall develop a plant relocation mitigation plan for the off-site open space. The mitigation plan shall be (prepared by a biologist with at least 5 years of experience in rare plant relocation and/or mitigation), and the plan shall include a combination of preservation relocation and/or plantings with plant specimens grown on site or from local seed or cutting sources to achieve the mitigation ratios required by the County. 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. If relocation and/or plantings is conducted as part of the mitigation plan, the plant relocation mitigation 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), semidesert 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 acres), 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 this 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 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 longterm 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 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 discretion and submitted to the County and Wildlife Agencies9 for review and concurrence prior to disturbance. The buffer shall be flagged in the field and mapped on the construction plans. These buffer zones shall be avoided until the nesting cycle is complete.

**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.

Prior to decommissioning of Boulder Brush Facilities, a decommissioning plan consistent with the terms of the Private Lease would be prepared and implemented.

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<sup>&</sup>lt;sup>9</sup> Wildlife Agencies is defined as the U.S. Fish and Wildlife Service and California Department of Fish and Game.

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.

**M-BIO-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-cm 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

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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 all 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, is appropriate to the area, and is without invasive species 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.

Additionally, a weed management plan shall be developed prior to commencement of construction activities. The plan will cover a Weed Management Area (WMA) which includes all project disturbance areas, and a 50 foot buffer. The plan shall include the following:

1. <u>Baseline weed inventory and risk assessment, identifying species targeted</u> for control that currently occur within, or that may invade, the WMA

- 2. <u>Identification of baseline infestation areas and necessary containment/preventive measures</u>
- 3. Annual surveys within the WMA to document weed species during construction and for 2 years post construction
- 4. <u>Success standards</u>, such as no more than a 10% increase in target weed species within the WMA
- 5. Control techniques and adaptive management measures
- 6. Reporting

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

- **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. <u>See also mitigation measure M-WF-1, Chapter 2.9 Wildfire.</u>
- 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, and Local Agency Permits. Prior to impacts occurring to U.S. Army Corps of Engineers (USACE), 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: USACE 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) and the applicable Resource Agencies. 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.

#### 6.4.2 Campo Facilities

The following mitigation measures 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 Fencing and Signage. Construction flagging fencing 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 of the lease area border suitable Quino checkerspot butterfly habitat to prevent intrusion into sensitive habitat and remind personnel of restrictions regarding activities within these areas.
- (b) Seasonal Avoidance. To the extent practicable, all construction clearing and grubbing in mapped suitable QCB habitat (i.e., within a 200-meter radius around host plant concentrations or QCB detections that are located within 1-kilometer of a mapped QCB location) associated with construction of the Project shall occur when adult and larval activity is reduced and host plants are not generally flowering or germinating, as determined by the USFWS. Vegetation management during the operation and maintenance phase of the Project shall also occur when adult and larval activity is reduced and host plants are not generally flowering or germinating, to the extent practicable.

#### 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 nestclearance 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 prev.

(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 <u>Ddeveloper</u>. The Campo Environmental Protection Agency is recommended to oversee shall enforce the duties of the Project biologist for all work conducted on the Reservation. The <u>Ddeveloper</u> 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 <u>all</u> 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 beare subject to

enforcement by the Campo Environmental Protection Agency on the Reservation, and the County of San Diego for the Boulder Brush Facilities Off-Reservation areas.

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 develop a fugitive dust control plan in compliance with San Diego County Air Pollution Control Regulations to reduce particulate matter less than 10 microns (PM<sub>10</sub>) and fine particulate matter less than 2.5 microns (PM<sub>2.5</sub>) emissions during construction and decommissioning. The fugitive dust control plan shall include names, addresses, and phone numbers of persons responsible for the preparation, submission, and implementation of the plan; description and location of operation(s); and a list of all fugitive dust emissions sources included in the operation.

The following dust control measures shall be implemented:

- All on-site unpaved roads shall be effectively stabilized using soil stabilizers that can be determined to be as efficient, or more efficient, for fugitive dust control than California Air Resources Board-approved soil stabilizers, and shall not increase any other environmental impacts including loss of vegetation. Application of the soil stabilizer shall be undertaken strictly to the manufacturer's directions for application and cognizant of the weather forecast to avoid application immediately before a rain event.
- All material excavated or graded shall be sufficiently watered to prevent excessive dust. Watering shall occur as needed with complete coverage of disturbed areas.
- All haul trucks hauling soil, sand, and other loose materials shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).

- Soil loads shall be kept below 18 inches of the freeboard of the truck.
- <u>Drop heights shall be minimized when loaders dump soil into trucks.</u>
- Traffic speeds on unpaved roads shall be limited to 15 miles per hour.
- Disturbed areas shall be minimized.

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 percent% cover of plant species native to adjacent habitats within a 2-two-year time frame. If 40 percent% cover of native species is not achieved within 2 two years, adaptive management measures (e.g., supplemental seeding, erosion control, pest control) will be pursued until 40 percent% cover of native species is achieved.

If the Campo Wind Facilities were to be decommissioned Prior to decommissioning of Campo Wind Facilities, a decommissioning plan would be prepared and implemented. The decommissioning plan shall include revegetation of the previously impacted disturbed areas. Soil would be revegetated with native plant species found within adjacent habitats. Locally available seed would be will 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 percent% cover of plant species native to adjacent habitats within 2-a two-years of construction completion time frame. If 40 percent% cover of native species is not achieved within two2 years, adaptive management measures will be pursued until 40 percent% 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 will cover a Weed Management Area (WMA) which includes all project disturbance areas, and a 50 foot buffer. The plan shall include the following:
  - <u>Baseline Ww</u>eed inventory and risk assessment, <u>identifying species</u> targeted for control that currently occur within, or that may invade, the WMA;
  - Identification of problem <u>baseline infestation</u> areas and necessary <u>containment/preventive measures</u>;
  - Annual surveys within the <u>WMA restoration areas</u> to document <u>weed</u> <u>species during construction and for weed patches for</u> 2 years post construction;
  - Success standards, such as no more than a 10% increase in <u>target</u> weed species <u>within the WMA in restoration areas</u>;
  - Control techniques and Aadaptive management measures; and
  - Reporting.

All herbicide application shall be in compliance with <u>all</u> 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 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.

#### 6.5 Conclusions: Level of Significance After Mitigation

#### 6.5.1 Sensitive Plant Species

#### **Boulder Brush Facilities**

**Impact SP-1:** Temporary Direct Impacts to Special-Status Plant Species

Potential significant temporary direct impacts during Boulder Brush Facilities construction would be mitigated to less than significant through implementation of **M-BI-2** (biological monitoring), **M-BI-3** (temporary construction flagging/fencing) and **M-BI-4** (SWPPP BMPs, including restrictions on plantings, and temporary equipment staging and storage).

**Impact SP-2**: Permanent Direct Impacts to Special-Status Plant Species

The Boulder Brush Facilities would result in the loss of special-status plant species. Impacts to special-status plant individuals would be mitigated through the preservation of plant individuals at a ratio of 2:1 for County List A species, 1:1 ratio for County List B species, and suitable habitat for County List D species (M-BI-5).

**Impact SP-3:** Temporary Indirect Impacts to Special-Status Plant Species

Potential temporary indirect impacts during Boulder Brush Facilities construction to special-status plant species would be reduced to less than significant through **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), and **M-BI-12** (regulation of chemical pollutants).

**Impact SP-4:** Permanent Indirect Impacts to Special-Status Plant Species

Permanent indirect impacts to special-status plants during the life of the Boulder Brush Facilities would be reduced to less than significant through 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).

#### **Campo Wind Facilities**

**Impact SP-A:** Permanent Direct Impacts to Special-Status Plant Species

Potential permanent 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, no mitigation is proposed. Impacts to non-federally listed plants would be **significant and unavoidable**.



**Impact SP-B:** Temporary Indirect Impacts to Special-Status Plant Species

Potential temporary indirect impacts to special-status plant species would be reduced to less than significant through incorporation of the BMPs outlined in Table 5-3 and the General Avoidance and Minimization Measures (**M-BI-C**).

**Impact SP-C:** Permanent Indirect Impacts to Special-Status Plant Species

Potential permanent indirect impacts to special-status plant species would be reduced to less than significant through incorporation of the BMPs outlined in Table 5-3 and the General Avoidance and Minimization Measures (**M-BI-C**).

#### 6.5.2 Special-Status Wildlife Species

#### **Boulder Brush Facilities**

**Impact W-1:** Temporary Direct Impacts to Habitat for Special-Status Wildlife Species

Potential significant temporary direct impacts to special-status wildlife species would be reduced to less than significant through implementation of M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging/fencing), M-BI-4 (SWPPP BMPs, including restrictions on plantings, and temporary equipment staging and storage), M-BI-6 (preconstruction surveys for nesting birds), and M-BI-7 (revegetation temporarily impacted areas). These impacts would be reduced to less than significant because the measures would minimize the potential for loss of wildlife individuals. However, temporary impacts to vegetation communities are still considered permanent impacts and would be mitigated through off-site habitat conservation (see Impact W-2).

**Impact W-2:** Permanent Direct Impacts to Habitat for Special-Status Wildlife Species

As stated in Section 6.2, the Boulder Brush Facilities would have direct impacts to foraging habitat for raptors and habitat for those species listed in Table 5-5. These impacts would be reduced to **less than significant** levels through implementation of **M-BI-5** (habitat preservation).

**Impact W-3:** Permanent Direct Impacts to Special-Status Wildlife Species (Nesting Birds)

The Boulder Brush Facilities could impact nesting birds protected under the MBTA and California Fish and Game Code. These impacts would be reduced to **less than significant** through implementation of **M-BI-6** (preconstruction surveys for nesting birds).



**Impact W-4**: Permanent Direct Impacts to Special-Status Wildlife Species (Collisions and Electrocution)

Migratory birds could be injured or killed through collisions with and electrocution by transmission lines (gen-tie). These impacts would be reduced to **less than significant** through implementation **M-BI-8** (APLIC standards) and **M-BI-9** (removal of dead carcasses).

**Impact W-5:** Permanent Direct Impacts to Occupied Quino Checkerspot Butterfly

The significant permanent direct impacts to 54.79 acres of occupied Quino checkerspot butterfly habitat would be reduced to less than significant through implementation of mitigation measure **M-BI-1**, which describes the Section 7 consultation process with the USFWS, off-site mitigation for permanent impacts to Quino checkerspot butterfly habitat, avoidance of hilltopping habitat, fencing and signage around occupied Quino checkerspot butterfly habitat, and working in suitable habitat areas when the adult and larval activity is low.

**Impact W-6:** Temporary Indirect Impacts to Special-Status Wildlife Species

The significant temporary indirect impacts to avian foraging and wildlife access to foraging, nesting, or water resources would be reduced to less than significant through implementation of M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging/fencing), M-BI-4 (SWPPP BMPs, including restrictions on plantings, and temporary equipment staging and storage), M-BI-6 (nesting bird survey), and M-BI-7 (revegetation replanting temporarily impacts areas), 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 species) because the mitigation would prevent construction impacts beyond the Boulder Brush Facilities development footprint and restore temporarily impacted areas.

**Impact W-7**: Permanent Indirect Impacts to Special-Status Wildlife Species

The significant permanent indirect impacts from Boulder Brush Facilities to special-status wildlife species would be reduced to less than significant through implementation of **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) and **M-BI-15** (access control).

#### **Campo Wind Facilities**

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



Permanent direct impacts to 272.81 acres of potentially occupied Quino checkerspot butterfly habitat would be reduced to **less than significant** through implementation **M-BI-A** (Quino Checkerspot Butterfly-Specific Avoidance, Minimization, and Mitigation Measures which describes the Section 7 consultation process with the USFWS, off-site mitigation for permanent impacts to Quino checkerspot butterfly habitat, avoidance of hilltopping habitat, fencing and signage around occupied Quino checkerspot butterfly habitat, and working in suitable habitat areas when the adult and larval activity is low.

**Impact W-B:** Permanent Direct Impacts to Habitat for Special-Status Wildlife Species

Permanent direct impacts to raptor foraging and/or nesting habitat on the Reservation are not subject to the mitigation requirements in the County guidelines. Impacts to raptor foraging and/or nesting habitat would be **less than significant** given the large amount of habitat within the region.

**Impact W-C:** Impacts to Active Nests

The Campo Wind Facilities could impact nesting birds protected under the MBTA. These impacts would be reduced to **less than significant** through **M-BI-B** (Avian-Specific Avoidance, Minimization, and Mitigation Measures).

**Impact W-D:** Impacts to Wildlife Species from Collisions or Electrocution

The Campo Wind Facilities could impact birds through collisions with the turbines and towers and electrocution from transmission lines (gen-tie). These impacts would be reduced to **less than significant** through implementation of **M-BI-B** (Avian-Specific Avoidance, Minimization, and Mitigation Measures), which recommends implementing APLIC standards, preparing a Bird and Bat Conservation Strategy, and removing carcasses within the development site to reduce increased attraction of carrion-consuming birds of prey to the turbine and tower areas.

**Impact W-E:** Temporary Indirect Impacts to Special-Status Wildlife Species

Temporary indirect impacts to special-status wildlife species would be reduced to less than significant through **M-BI-C**.

Impact W-F: Permanent Indirect Impacts to Special-Status Wildlife Species

Permanent indirect impacts to special-status wildlife species would be reduced to less than significant through **M-BI-C**.



#### 7 RIPARIAN HABITAT OR SENSITIVE NATURAL COMMUNITY

#### 7.1 Guidelines for the Determination of Significance

The County's Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources (County of San Diego 2010a) are based on the criteria in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) and were used to analyze potential direct and indirect impacts to biological resources. The following guidelines for the determination of significance come directly from the County's guidelines (County of San Diego 2010a):

- Guideline 4.2: The 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 [County of San Diego 2010a] excluding those without a mitigation ratio) on or off the project area. 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 the project vicinity, and current degree of urbanization and edge effects in project 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.

### 7.2 Analysis of Project Effects

#### 7.2.1 Project Effects Relevant to Guideline 4.2.A (Impacts to Sensitive Habitat)

#### **Boulder Brush Facilities**

**Impact V-1**: Temporary Direct Impacts to Sensitive Vegetation Communities within the Boulder Brush Corridor

Temporary direct impacts to sensitive riparian and upland vegetation communities within and outside of the development footprint would primarily result from construction activities. Temporary impacts would occur in conjunction with road grading where temporary impacts extend outside the permanent footprint, gen-tie pole installation, a laydown yard needed for installation of the gen-tie poles, a parking area during construction, and FMZs associated with the gen-tie line pole, the high-voltage substation, and the switchyard. Temporary direct impacts associated with the development footprint are considered permanent and mitigated through off-site habitat conservation (see **Impact V-2**). Clearing, trampling, or grading of sensitive vegetation communities outside designated construction zones could occur in the absence of avoidance and mitigation measures. Potential temporary direct impacts to sensitive vegetation communities on site would be significant, absent mitigation (**Impact V-1**). However, these temporary, direct impacts would be mitigated to less than significant through implementation of **M-BI-2** (biological monitoring), **M-BI-3** (temporary construction flagging and/or



fencing), **M-BI-4** (SWPPP), **M-BI-5** (habitat preservation), **M-BI-7** (<u>revegetation restoration of temporary impacts</u>), and **M-BI-16** (federal and state agency permits).

**Impact V-2:** Permanent Direct Impacts to Sensitive Vegetation Communities within the Boulder Brush Corridor

Permanent direct impacts to sensitive riparian and upland vegetation communities are analyzed in Section 5.1.1.2. As noted above in **Impact V-1**, there are temporary direct impacts to vegetation. While these areas would be replanted, they will not be managed as part of a long-term management or monitoring plan, and therefore, are considered permanent impacts for mitigation requirement purposes. The Boulder Brush Facilities would cause the direct loss of 122.6 acres of sensitive vegetation communities (uplands and riparian) and 7.3 acre of oak root zone (Table 7-1, Vegetation Communities and Land Cover Types within the Development Footprint Mitigation Requirements) (**Impact V-2**).

Table 7-1
Vegetation Communities and Land Cover Types Boulder Brush Facilities Impacts and
Mitigation Requirements

General Vegetation Community/Land Cover Category	Vegetation Type (Holland/Oberbauer Code <sup>a</sup> )	Impacts (Acres)	Mitigation Ratio	Mitigation Requirements (Acres)
Disturbed and Developed Areas (10000)	Disturbed Habitat (11300)	8.0	_	0
	Urban/Developed (12000)	0.1	_	0
	Disturbed and Developed Areas Subtotal	8.1	_	0
Scrub and Chaparral (30000)	Montane buckwheat scrub (32800) <sup>b</sup>	17.0	1:1	17.0
	Big Sagebrush Scrub (35210) <sup>b</sup>	9.2	2:1	18.4
	Granitic Northern Mixed Chaparral (37131) <sup>b</sup>	33.5	0.5:1	16.8
	Granitic Chamise Chaparral (37210)b	3.6	0.5:1	1.8
	Red Shank Chaparral (37300) <sup>b</sup>	18.4	1:1	18.4
	Semi-Desert Chaparral (37400) <sup>b</sup>	31.1	1:1	31.1
Scrub and Chaparral Subtotal		112.8	_	103.5
Grasslands, Vernal Pools, Meadows, and other Herb Communities (40000)	Wildflower Field (42300) <sup>b</sup>	3.7	3:1	11.1
Grasslands, Vernal Pools, Meadows, and other Herb Communities Subtotal		3.7	_	11.1
Bog and Marsh (50000)	Emergent Wetland (52440)b	0.2	3:1	0.6
Bog and Marsh Subtotal		0.2	_	0.6
Riparian and Bottomland Habitat (60000)	Southern Arroyo Willow Riparian Forest (61320) <sup>b</sup>	0.4	3:1	1.1 <sup>d</sup>
Riparian and Bottomland Habitat Subtotal <sup>c</sup>		0.4	_	1.1

Table 7-1
Vegetation Communities and Land Cover Types Boulder Brush Facilities Impacts and
Mitigation Requirements

General Vegetation Community/Land Cover Category	Vegetation Type (Holland/Oberbauer Code <sup>a</sup> )	Impacts (Acres)	Mitigation Ratio	Mitigation Requirements (Acres)
Woodland (70000)	Coast Live Oak Woodland (71160) <sup>b</sup>	5.5	3:1	16.5
	Open Coast Live Oak Woodland (71161) <sup>b</sup>	0.1	3:1	0.3
Woodland Subtotal <sup>c</sup>		5.6	_	16.8
Waters of the United States/State	Unvegetated Stream Channel	0.1e	1:1	0.1
Waters of the United States/State Subtotal		0.1	_	0.1
Total Impacts to Sensitive Upland and Riparian and Required Mitigation		122.6	_	133.1
Oak Root Zone		7.3	3:1	21.9
Total		122.6 <sup>f</sup>	_	155.1

- <sup>a</sup> Holland (1986) as modified by Oberbauer et al. (2008).
- b Considered special status by the County (County of San Diego 2010a).
- c Totals may not sum due to rounding.
- Per County guidelines, mitigation will 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
- Impacts to unvegetated stream channel does not include 0.30 acres of temporary impacts which will be restored following project construction (see Table 5-1).
- Since the oak root zone is an overlay, it is not included in the impacts total. However, separate mitigation requirements apply to the oak root zone; therefore it is included in the mitigation requirements.

**M-BI-5** (habitat preservation) and **M-BI-16** (federal and state agency permits requiring no net loss of resources), described in Section 6.4.1, would mitigate for this impact through off-site habitat preservation and agency permitting requiring no net loss of jurisdictional aquatic resources. With implementation of these measures, potentially significant impacts to sensitive vegetation communities as a result of the Boulder Brush Facilities would be mitigated to **less than significant**.

#### **Campo Wind Facilities**

**Impact V-A:** Permanent Direct Impacts to Sensitive Vegetation Communities within the Campo Corridor

The Campo Wind Facilities would result in impacts to 789.3 acres of vegetation communities and land covers (Table 5-2). Of those, approximately 740.5 acres are considered "sensitive vegetation communities" by the County. Impacts to vegetation communities or land covers on the Reservation are not subject to the mitigation requirements in the County guidelines. Therefore, mitigation is not proposed. Permanent direct impacts to sensitive vegetation communities would be **significant and unavoidable**.



# 7.2.2 Project Effects Relevant to Guideline 4.2.B (Impacts to Wetlands and Riparian Habitats)

Any activity resulting from construction activities, which result in an adverse change to jurisdictional aquatic resources (i.e., wetlands and riparian habitat under the jurisdiction of USACE, CDFW and/or 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, and abundance.

#### **Boulder Brush Facilities**

**Impact JAR-1:** Temporary Direct Impacts to Jurisdictional Aquatic Resources within the Boulder Brush Corridor

Temporary direct impacts to jurisdictional aquatic resources would primarily result from construction activities. Temporary impacts to jurisdictional aquatic resources total 0.70 acres (see Table 5-8). Similar to vegetation impacts, temporary direct impacts to wetland or riparian areas are considered permanent and mitigated through off-site habitat conservation (see **Impact JAR-2**); however, temporary impacts to non-wetland waters/unvegetated stream channels will be recontoured to pre-Project conditions. Clearing, trampling, or grading of jurisdictional aquatic resources outside of designated construction zones could occur in the absence of avoidance and mitigation measures. Potential temporary direct impacts to jurisdictional aquatic resources within the Boulder Brush Corridor would be significant, absent mitigation (**Impact JAR-1**).

Temporary impacts would be mitigated to a level below significance through implementation of M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging and/or fencing), M-BI-4 (SWPPP), M-BI-7 (revegetation restoration of temporary impacts), and M-BI-16 (federal and state agency permits). Additionally, M-BI-5 will provide off-site habitat mitigation for temporary impacts. These mitigation measures would prevent and document that construction would not cause additional impacts outside of the development footprint, restore hydrology as part of erosion control, and require permits from the appropriate federal and state agencies relating to impacting jurisdictional aquatic resources. The permits, in conjunction with agency oversight, would ensure that adequate mitigation, such as the restoration of temporary impacts to jurisdiction aquatic features, is implemented. The above mitigation measures are described in Sections 6.4.1 and 7.4.1

**Impact JAR-2:** Permanent Direct Impacts to Jurisdictional Aquatic Resources within Boulder Brush Corridor

The Boulder Brush Facilities would permanently affect 0.28 acres of regulated jurisdictional aquatic resources, as summarized in Table 5-8 (**Impact JAR-2**) (Figure 5-1 series; Table 5-4). As noted above in **Impact JAR-1**, there are temporary direct impacts to wetland or riparian habitat. Permanent, direct impacts would be mitigated to less than significant through implementation of **M-BI-5** (habitat preservation) and **M-BI-16** (federal and state agency permits). Implementation of **M-BI-5** and **M-BI-16** ensures that the Project applicant provide off-site habitat preservation obtain the required permits from the appropriate federal and state agencies relating to impacting jurisdictional aquatic resources. These permits would require that the Boulder Brush Facilities have a no-net loss of jurisdictional aquatic resources (i.e., wetlands and non-wetland waters). Permanent direct impacts to jurisdictional aquatic resources would be **less than significant** with implementation of these mitigation measures. The full text of the mitigation measures is presented in Sections 6.4.1 and 7.4.1 of this Report.

**Impact JAR-3:** Temporary Indirect Impacts to Jurisdictional Aquatic Resources within the Boulder Brush Corridor

Potential temporary indirect impacts to jurisdictional aquatic resources in the Boulder Brush 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) (**Impact JAR-3**). Potential temporary indirect impacts that could affect all the jurisdictional aquatic resources that occur adjacent to development are described in Section 5.4.

Absent mitigation, potential temporary indirect impacts to jurisdictional aquatic resources that occur within the Boulder Brush Corridor would be significant. M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging and/or 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) would mitigate these impacts to less than significant. The measures would mitigate for this impact through implementation of construction-related measures to reduce impacts outside of the development footprint, implementation of a SWPPP, implementation of erosion and runoff control measures, prevention of chemical spills, and implementation of federal and state agency permit requirements. Temporary indirect impacts to jurisdictional aquatic resources would be less than significant with implementation of these mitigation measures. The full text of these mitigation measures is presented in Sections 6.4.1 and 7.4.1 of this Report.

**Impact JAR-4:** Permanent Indirect Impacts to Jurisdictional Aquatic Resources within the Boulder Brush Corridor

Permanent indirect impacts could result from the proximity of the Boulder Brush Facilities to jurisdictional aquatic resources after construction generation of fugitive dust, chemical pollutants, non-native invasive species, and alteration of the natural fire regime (Impact JAR-4). Each of these potential indirect impacts is discussed in Section 5.4. Absent mitigation, potential permanent indirect impacts to jurisdictional aquatic resources that occur within the Boulder Brush Corridor would be significant. 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) would mitigate for these impacts. These measures would mitigate for this impact through construction-related measures to reduce impacts outside of the development footprint, SWPPP implementation, erosion and runoff control measures, minimization of release of exotic plants and animals, implementation of a Fire Protection Plan, prevention of chemical spills, and implementation of federal and state agency permit requirements. With implementation of these mitigation measures, the permanent direct impacts to jurisdictional aquatic resources would be less than significant. The full text of these mitigation measures is presented in Section 6.4.1 and 7.4.1 of this Report.

#### **Campo Wind Facilities**

**Impact JAR-A:** Permanent Direct Impacts to Jurisdictional Aquatic Resources within the Campo Corridor

The Campo Wind Facilities would permanently affect 1.13 acres (8,839 linear feet) of ephemeral non-wetland waters, less than 0.00 acre (199 linear feet) of intermittent non-wetland waters, and 0.67 acres of wetlands (**Impact JAR-A**) (Figure 5-2 series; Table 5-9). To the extent feasible, Project features have been sited to avoid potential jurisdictional waters of the United States. However, potential permanent impacts resulting from new access road (unpaved) construction are unavoidable. While considered a permanent impact, construction of these unpaved roads across underdeveloped ephemeral drainage features would not affect the overall functions (e.g., volume, velocity, and historical direction of surface water) or values (e.g., aesthetics, flood control, and water quality) of these ephemeral drainages because the roads will be at grade to allow for water to continue flowing downstream.

These permanent direct impacts will be reduced to less than significant through **M-BI-D**, which includes the Jurisdictional Waters and Wetlands-Specific Avoidance, Minimization, and Mitigation Measures. The full text of these mitigation measures is presented in Section 7.4.2 of this Report.



**Impact JAR-B:** Temporary Indirect Impacts to Jurisdictional Aquatic Resources within the Campo Corridor

Potential temporary indirect impacts to jurisdictional aquatic 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) (**Impact JAR-B**). Potential temporary indirect impacts that could affect all the jurisdictional aquatic resources that occur adjacent to development are described in Section 5.4.

The incorporation of the BMPs outlined in Table 5-3 and implementation of **M-BI-C**, General Avoidance and Minimization Measures, and **M-BI-D**, Jurisdictional Waters and Wetlands-Specific Avoidance, Minimization, and Mitigation Measures, would reduce the impacts to **less than significant**. The full text of the mitigation measure is presented in Sections 6.4.2 and 7.4.2 of this Report.

**Impact JAR-C:** Permanent Indirect Impacts to Jurisdictional Aquatic Resources within the Campo Corridor

Permanent indirect impacts could result from the proximity of the Project to jurisdictional aquatic resources after construction generation of fugitive dust, chemical pollutants, non-native invasive species, and alteration of the natural fire regime (**Impact JAR-C**). Each of these potential indirect impacts is discussed in Section 5.4. Absent mitigation, potential permanent indirect impacts to jurisdictional aquatic resources that occur within the Campo Corridor would be significant.

The incorporation of the BMPs outlined in Table 5-3 and **M-BI-C**, General Avoidance and Minimization Measures, and **M-BI-D**, Jurisdictional Waters and Wetlands-Specific Avoidance, Minimization, and Mitigation Measures, would reduce the impacts to **less than significant**. The full text of the mitigation measure is presented in Sections 6.4.2 and 7.4.2 of this Report.

# 7.2.3 Project Effects Relevant to Guideline 4.2.C (Impacts to Groundwater Table)

Approximately 50 acre-feet (AF) of water would be used to construct the Boulder Brush Facilities. Up to 123 AF of water would be used to construct the Campo Wind Facilities. The Jacumba Community Service District (JCSD) or Padre Dam Municipal Water District (PDMWD) have capacity to support these temporary water needs. Additionally, the Boulder Brush Facilities would use up less than acre-foot of groundwater from an on-site well during this time, and none during the operation of the Project. Decommissioning of the Project would require less activity and reduced water demand from JCSD or PDMWD compared to construction and would not therefore



be expected to exceed capacity for temporary needs. Therefore, the Project would not significantly impact groundwater or groundwater-dependent habitat.

# 7.2.4 Project Effects Relevant to Guideline 4.2.D (Indirect Impacts to Sensitive Habitat)

#### **Boulder Brush Facilities**

**Impact V-3:** Temporary Indirect Impacts to Sensitive Vegetation Communities within the Boulder Brush Corridor

Potential temporary indirect impacts to sensitive vegetation communities in the Boulder Brush 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 as described in detail in Section 5.1.2.1 (Impact V-3). Absent mitigation, potential temporary indirect impacts to sensitive vegetation communities that occur within the Boulder Brush Corridor would be significant. M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging and/or fencing), M-BI-4 (SWPPP), M-BI-7 (revegetation replanting temporarily impacts areas), M-BI-10 (fugitive dust control), M-BI-11 (erosion and runoff control), and M-BI-12 (regulation of chemical pollutants) would mitigate these impacts to less than significant. The measures would mitigate for this impact through implementation of construction-related measures to reduce impacts outside of the development footprint, implementation of a SWPPP, implementation of erosion and runoff control measures, prevention of chemical spills, and implementation of federal and state agency permit requirements. With implementation of these mitigation measures, temporary indirect impacts to sensitive vegetation communities would be less than significant. The full text of these mitigation measures is presented in Section 6.4.1 and 7.4.1.

Impact V-4: Permanent Indirect Impacts to Sensitive Vegetation Communities within the Boulder Brush Corridor

As described in Section 5.1.2.2, permanent indirect impacts could result from the proximity of the Boulder Brush Facilities to sensitive vegetation communities after construction (e.g., maintenance of roads, and clearance around gen-tie poles) (Impact V-4). Permanent indirect impacts that could affect sensitive vegetation communities include generation of fugitive dust, chemical pollutants, non-native invasive species, and alteration of the natural fire regime. Absent mitigation, potential permanent indirect impacts to sensitive vegetation communities that occur within the Boulder Brush Corridor would be significant. 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) would mitigate for these impacts. These measures would mitigate for this impact through construction-related measures to reduce impacts outside of the development footprint, SWPPP implementation, erosion and runoff control measures, minimization of release of exotic plants and animals, implementation of a Fire Protection Plan, and prevention of chemical spills. With implementation of these mitigation measures, permanent indirect impacts to sensitive vegetation communities would be less than significant. The full text of these mitigation measures is presented in Section 6.4.1 and 7.4.1.

#### **Campo Wind Facilities**

**Impact V-B:** Temporary Indirect Impacts to Sensitive Vegetation Communities within the Campo Corridor

Potential temporary indirect impacts to sensitive vegetation communities 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) (**Impact V-B**). Sensitive vegetation communities that could occur within the Campo Corridor, but outside of the development footprint, could be impacted by potential temporary indirect impacts such as those previously listed (see descriptions in Section 5.1). Absent mitigation, these impacts would be significant. Implementation of the BMPs outlined in Table 5-3 and **M-BI-C** would reduce the impacts to **less than significant**. The full text of these mitigation measures is presented in Section 6.4.2.

**Impact V-C:** Permanent Indirect Impacts to Sensitive Vegetation Communities within the Campo Corridor

Permanent indirect impacts could result from the proximity of the development footprint to sensitive vegetation communities after construction. Permanent indirect impacts that could affect sensitive vegetation communities include generation of fugitive dust, unintentional spillover or drift of chemical pollutants, non-native invasive species, and alteration of the natural fire regime (**Impact V-C**). Each of these potential indirect impacts is discussed in Section 5.1. Sensitive vegetation communities that may occur at the edge of the development footprint could be impacted by permanent indirect impacts such as those previously listed. Absent mitigation, these impacts would be significant. Implementation of the BMPs outlined in Table 5-3 and **M-BI-C** would reduce the impacts to **less than significant**. The full text of these mitigation measures is presented in Section 6.4.2.

# 7.2.5 Project Effects Relevant to Guideline 4.2.E (Resource Protection Ordinance Buffers)

#### **Boulder Brush Facilities**

Impact V-5: Permanent Direct Impacts to RPO Wetland and Wetland Buffer within the Boulder Brush Corridor

There are RPO wetlands along and within Tule Creek and Ribbonwood Road (Table 7-2). The construction of the Boulder Brush Facilities would require use of the existing disturbed area that bisects the RPO wetlands and wetland buffer associated with Tule Creek; however, the road would need to be widened to 25 feet in order to accommodate construction equipment, resulting in permanent impacts to 0.09 acres of RPO wetland/wetland buffer. The road would remain unpaved. Additional improvements are needed along Ribbonwood Road, which would permanently impact 0.31 acres of RPO wetland/wetland buffer. There are temporary impacts associated with each of these road improvements, totaling 0.90 acres of RPO wetland/wetland buffer. An additional temporary road is proposed in the northern portion of the Tule Creek floodplain. This temporary road results in approximately 0.27 acres of temporary 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).

The Boulder Brush Facilities would involve use of an existing unpaved access road to cross over the middle segment of Tule Creek to the western side of the Boulder Brush Corridor. This is the only available access road to this portion of the Boulder Brush Facilities. This crossing would need to be improved to accommodate the necessary construction equipment via upgrades to the roadway (i.e., widening to 25 feet) and installation of a larger culvert to maintain flows beneath the roadway. Improvements to Ribbonwood Road would require minimal impacts to the RPO wetland buffer along the southern portion of Tule Creek. Additionally, a 12-foot wide temporary construction access road is required in the northern segment of Tule Creek for hauling equipment between the poles. This road will be utilized only during construction to drive a pull truck across it to string cables, and will not be a permanent access road. Vegetation in this area will be trimmed or disked and no gravel or pavement will be placed within the creek. Following Project construction, the area will be re-countered and replanted to restore Tule Creek to pre-Project conditions. However, for habitat mitigation purposes, these impacts are considered permanent and mitigated through habitat conservation.

All temporary staging for the proposed Project would be outside of the RPO wetlands, and impacts to these resources would be mitigated through M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging and/or fencing), M-BI-4 (SWPPP), M-BI-11 (erosion and runoff control), and M-BI-12 (regulation of chemical pollutants).

There are permanent impacts to RPO wetlands and wetland buffers, as summarized in Table 7-2.

Table 7-2
Impacts to Resource Protection Ordinance Wetlands and Wetland Buffers within the
Boulder Brush Facilities Development Footprint

RPO Wetland or Wetland		Permanent Impacts	Temporary Impacts	
Buffer	Vegetation Type	(Acres)	(Acres)	Total Impacts
RPO Wetlands	Emergent Wetland	-	0.20	0.20
	Southern Arroyo Willow Riparian Forest	0.15	0.20	0.35
	Unvegetated Stream Channel - Intermittent	0.01	0.09	0.10
	RPO Wetland Impact Subtotal	0.17	0.49	0.66
RPO Wetland Buffers	Big Sagebrush Scrub	0.05	0.40	0.45
	Coast Live Oak Woodland		0.04	0.04
	Disturbed Habitat	0.18	0.17	0.35
	Semi-Desert Chaparral		0.03	0.03
	Wildflower Field		0.01	0.01
	Unvegetated Stream Channel - Ephemeral		0.05	0.05
RPO Wetland Buffer Impact Subtotal		0.23	0.68	0.92
	Grand Total	0.40	1.17	1.57

Construction would result in impacts to 0.17 acres of RPO wetlands, and these impacts would be mitigated at a 3:1 ratio, as required by the RPO (M-BI-5). Permanent impacts to 0.23 acres of RPO wetland buffers will be mitigated through habitat preservation (M-BI-5). Temporary impacts to 0.09 acres of intermittent stream channel and 0.05 acres of ephemeral stream channels will be restored to pre-Project conditions (M-BI-7). The remaining temporary impacts to RPO wetland and wetland buffer would will be mitigated through habitat preservation (M-BI-5). In addition, these areas are subject to federal and state agency permitting (M-BI-16). With implementation of these measures, impacts to RPO wetlands would be less than significant. The full text of these mitigation measures is presented in Sections 6.4.1 and 7.4.1 of this Report.

#### **Campo Wind Facilities**

**Impact V-D:** Permanent Direct Impacts to RPO Wetland and Wetland Buffer within the Campo Corridor

The Campo Wind Facilities On-Reservation 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.** 

#### 7.3 Cumulative Impact Analysis

Cumulative impacts are discussed in the EIR prepared for the Project. Please refer to the Section 2.3, Biological Resources, of the EIR for an analysis of cumulative impacts. For purposes of assessing cumulative impacts related to the Project, an appropriate geographic scope would include the Peninsular Ranges of the California floristic province, as defined by the Jepson Flora project (2018).

### 7.4 Mitigation Measures and Design Considerations

#### 7.4.1 Boulder Brush Facilities

Mitigation measures M-BI-1 through M-BI-15 are described in Section 6.4.1 above.

#### **M-BI-16**

Federal, and State, and Local Agency Permits. Prior to impacts occurring to U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW) (collectively, the Resource Agencies) jurisdictional aquatic resources, the Project applicant or its designee shall obtain the following permits: USACE 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 applicant may purchase mitigation bank credits, including establishment, reestablishment, 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 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 Project applicant shall prepare a Wetlands Mitigation and Monitoring Plan to the satisfaction of the Director of Planning & Development Services (or his/her designee) and the applicable Resource Agencies. 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.

#### 7.4.2 Campo Wind Facilities

Mitigation measures M-BI-A through M-BI-C are described in Section 6.4.2 above.

#### 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-1 for success criteria for revegetation areas.

#### 7.5 Conclusions

#### **Boulder Brush Facilities**

**Impact V-1:** Temporary Direct Impacts to Sensitive Vegetation Communities within the Boulder Brush Corridor

The significant temporary direct impacts to sensitive vegetation communities would be reduced to less than significant through 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 temporary impacts), and **M-BI-16** (federal and state agency permits; see County Guideline 4.2.B), which would mitigate for this impact through construction-related measures to reduce impacts outside of the development footprint, restoration of temporary impacted areas, and implementation of agency permitting requirements for impacts to jurisdictional aquatic resources.

Impact V-2: Permanent Direct Impacts to Sensitive Vegetation Communities within the Boulder Brush Corridor

The significant permanent, direct impact to sensitive vegetation communities within the development footprint (Table 5-1) would be reduced to less than significant through implementation of **M-BI-5** (habitat preservation), and **M-BI-16** (federal and state agency permits for jurisdictional aquatic resources, see County Guideline 4.2.B). These measures would mitigate for this impact through habitat preservation and, construction-related measures to reduce impacts outside of the development footprint.

**Impact V-3:** Temporary Indirect Impacts to Sensitive Vegetation Communities within the Boulder Brush Corridor

Significant indirect impacts to sensitive vegetation communities would be reduced to less than significant through implementation of M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging and/or fencing), M-BI-4 (SWPPP), M-BI-7 (revegetation replanting temporarily impacts areas), M-BI-10 (fugitive dust control), M-BI-11 (erosion and runoff control), and M-BI-12 (regulation of chemical pollutants).

Impact V-4: Permanent Indirect Impacts to Sensitive Vegetation Communities within the Boulder Brush Corridor

Significant permanent indirect impacts to sensitive vegetation communities would be reduced to less than significant through implementation of 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).

**Impact V-5:** Permanent Direct Impacts to RPO Wetland and Wetland Buffer within the Boulder Brush Corridor

The significant permanent, direct impacts to RPO wetland and wetland buffer (Table 7-2) would be reduced to less than significant through 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 restoration of temporary impacts), **M-BI-11** (erosion and runoff control), **M-BI-12** (regulation of chemical pollutants), and **M-BI-16** (federal and state agency permits).

**Impact JAR-1:** Temporary Direct Impacts to Jurisdictional Aquatic Resources within the Boulder Brush Corridor

Significant temporary direct impacts to jurisdictional aquatic resources would be reduced to less than significant through 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 restoration of temporary impacts), and M-BI-16 (federal and state agency permits).

**Impact JAR-2:** Permanent Direct Impacts to Jurisdictional Aquatic Resources within the Boulder Brush Corridor

Significant permanent direct impacts to jurisdictional aquatic resources would be reduced to less than significant through implementation of **M-BI-5** (habitat preservation) and **M-BI-16** (federal and state agency permits), which would mitigate for this impact through coordination with federal and state agencies to obtain the appropriate permits and approvals for impacts to jurisdictional aquatic resources and implementation of measures that would reduce impacts to jurisdictional aquatic resources (i.e., restoration of temporary impacts and purchase of mitigation credits to offset impacts).

**Impact JAR-3:** Temporary Indirect Impacts to Jurisdictional Aquatic Resources within the Boulder Brush Corridor

The significant temporary indirect impacts to jurisdictional aquatic resources would be reduced to less than significant through 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).

**Impact JAR-4:** Permanent Indirect Impacts to Jurisdictional Aquatic Resources within the Boulder Brush Corridor

The significant permanent indirect impacts to jurisdictional aquatic resources would be reduced to less than significant through implementation of **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).

#### **Campo Wind Facilities**

**Impact V-A:** Permanent Direct Impacts to Sensitive Vegetation Communities within the Campo Corridor

The Campo Wind Facilities would result in impacts to 789.3 acres of vegetation communities and land covers (Table 5-2). Of those, approximately 740.5 acres are considered "sensitive vegetation communities" by the County. Impacts to vegetation communities or land covers on the Reservation are not subject to the mitigation requirements in the County guidelines. Therefore, no mitigation measures are proposed. Permanent direct impacts would be **significant and unavoidable**.

**Impact V-B:** Temporary Indirect Impacts to Sensitive Vegetation Communities within the Campo Corridor

Significant temporary indirect impacts to sensitive vegetation communities would be reduced to less than significant through implementation of the BMPs outlined in Table 5-3 and **M-BI-**C.

**Impact V-C:** Permanent Indirect Impacts to Sensitive Vegetation Communities within the Campo Corridor

Significant permanent indirect impacts to sensitive vegetation communities would be reduced to less than significant through implementation of the BMPs outlined in Table 5-3 and **M-BI-**C.

**Impact V-D:** Permanent Direct Impacts to RPO Wetland and Wetland Buffer within the Campo Corridor

The Campo Wind Facilities On-Reservation 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 JAR-A:** Permanent Direct Impacts to Jurisdictional Aquatic Resources within the Campo Corridor

Significant permanent direct impacts to jurisdictional aquatic resources will be reduced to less than significant through **M-BI-D**.

**Impact JAR-B:** Temporary Indirect Impacts to Jurisdictional Aquatic Resources within the Campo Corridor

The significant temporary indirect impacts to jurisdictional aquatic resources would be reduced to less than significant through implementation of the BMPs outlined in Table 5-3, **M-BI-C**, and **M-BI-D**.

**Impact JAR-C:** Permanent Indirect Impacts to Jurisdictional Aquatic Resources within the Campo Corridor

The significant permanent indirect impacts to jurisdictional aquatic resources would be reduced to less than significant through implementation of the BMPs outlined in Table 5-3, **M-BI-C**, and **M-BI-D**.

#### 8 JURISDICTIONAL WETLANDS AND WATERWAYS

#### 8.1 Guidelines for the Determination of Significance

The County's Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources (County of San Diego 2010a) are based on the criteria in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) and were used to analyze potential direct and indirect impacts to biological resources. The following guideline for the determination of significance comes directly from the County's guidelines and refers only to federally protected wetlands (County of San Diego 2010a):

Guideline 4.3: 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.

The significance of impacts are determined under County Guidelines 4.2B, C, and E.

# 8.2 Analysis of Project Effects Relevant to Guideline 4.3 (Federally Protected Wetlands)

#### **Boulder Brush Facilities**

As described in Section 7.2, Analysis of Project Effects, 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 (Impacts JAR-1 through JAR-4). Impacts JAR-1 through JAR-4 would be mitigated through M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging and/or fencing), M-BI-4 (SWPPP), M-BI-5 (habitat preservation), M-BI-7 (revegetation of temporary impacts), M-BI-11 (erosion and runoff control), M-BI-12 (regulation of chemical pollutants), M-BI-13 (prevention of invasive plant species), and M-BI-16 (federal and state agency permits).

#### **Campo Wind Facilities**

As described in Section 7.2, the Campo Wind Facilities would have permanent direct impacts to jurisdictional aquatic resources, including wetlands, as defined by Section 404 of the Clean Water Act (**Impacts JAR-A** through **JAR-C**). **Impacts JAR-A** through **JAR-C** will be reduced to less than significant through implementation of **M-BI-C** and **M-BI-D**.



#### 8.3 Cumulative Impact Analysis

Cumulative impacts are discussed in the EIR prepared for the Project. Please refer to Section 2.3of the EIR. For purposes of assessing cumulative impacts related to the Project, an appropriate geographic scope would include the Peninsular Ranges of the California floristic province, as defined by the Jepson Flora project (2018).

#### 8.4 Mitigation Measures and Design Considerations

Mitigation measures applicable to County Guideline 4.3 are discussed in Sections 7.4.1 and 7.4.2 of the Report.

#### 8.5 Conclusions

Refer to Section 7.5, Conclusions, for the conclusions related to **Impacts JAR-1** through **JAR-4** for Boulder Brush Facilities and **Impacts JAR-A** through **JAR-C** for Campo Wind Facilities.



#### 9 WILDLIFE MOVEMENT AND NURSERY SITES

#### 9.1 Guidelines for the Determination of Significance

The County's Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources (County of San Diego 2010a) are based on the criteria in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) and were used to analyze potential direct and indirect impacts to biological resources. The following guidelines for the determination of significance come directly from the County's guidelines (County of San Diego 2010a):

- Guideline 4.4: 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 will 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.

#### 9.2 Analysis of Project Effects

# 9.2.1 Project Effects Relevant to Guideline 4.4.A (Wildlife Access to Key Habitat Areas)

#### **Boulder Brush Facilities**

**Impact WLC-1:** Temporary Direct Impacts to Habitat Connectivity and Wildlife Corridors

Temporary direct impacts to potential foraging and breeding habitat for species that use the Boulder Brush Corridor would primarily result from construction activities associated with the Boulder Brush Facilities. Clearing, trampling, or grading of foraging and breeding habitat outside designated construction zones could occur in the absence of avoidance and mitigation measures. Potential temporary direct impacts to foraging and breeding habitat on site would be significant, absent mitigation (Impact WLC-1). However, these temporary, direct impacts would be mitigated to less than significant through implementation of M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging and/or fencing), and M-BI-7 (revegetation restoration of temporary impacts), which would mitigate for this impact through construction-related measures to reduce impacts outside of the development footprint and through restoration of temporarily impacted areas. Implementation of these mitigation measures would reduce temporary direct impacts to habitat connectivity and wildlife corridors to less than significant. The full text of the mitigation measures is presented in Section 6.4.1 of this Report.

#### 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. See Section 5.5.1 for a detailed discussion regarding impacts to habitat connectivity and wildlife corridors. Installation of the Boulder Brush Facilities would result in **less than significant** impacts.

#### **Campo Wind Facilities**

**Impact WLC-A:** Temporary Direct Impacts to Habitat Connectivity and Wildlife Corridors

There are no temporary direct impacts associated with the Campo Wind Facilities. 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 significant, absent mitigation (**Impact WLC-A**). However, these temporary, direct impacts would be mitigated to less than significant through implementation of **M-BI-C** (General Avoidance and Minimization Measures). The full text of these mitigation measures is presented in Section 6.4.2 of this Report.

#### **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. See Section 5.5.1 for a detailed discussion regarding impacts to habitat connectivity and wildlife corridors. Installation of the Campo Wind Facilities would result in **less than significant** impacts.

# 9.2.2 Project Effects Relevant to Guideline 4.4.B (Connectivity Between Blocks of Habitat)

#### **Boulder Brush Facilities**

As stated in Section 5.5.1.2, implementation of the Boulder Brush Facilities is not expected to result in permanent direct impacts to habitat connectivity and wildlife corridors. 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. Additional human activity from occasional O&M activities is not expected to significantly impact wildlife movement throughout the Boulder Brush Corridor. Therefore, installation of the gen-tie poles, high-voltage substation, switchyard, and other



associated facilities is not anticipated to constrain any wildlife movement (either terrestrial) corridor within the region. The Boulder Brush Facilities would have **less-than-significant** direct impacts on connectivity between blocks of habitat.

#### **Campo Wind Facilities**

As stated in Section 5.5.2.2, implementation of the Campo Wind Facilities is not expected to result in permanent direct impacts to habitat connectivity and wildlife corridors. Although construction of the Campo Wind Facilities would impact areas where wildlife may generally move through, it is not anticipated to hinder wildlife movement through the surrounding undeveloped landscapes, particularly for terrestrial species. Additional human activity from O&M activities is not expected to significantly impact wildlife movement throughout the Project Site. Therefore, installation of the turbines, towers, gen-tie poles, and other associated features is not anticipated to constrain any wildlife movement (either terrestrial or avian) corridor within the region. The Campo Wind Facilities would have **less-than-significant** direct impacts on connectivity between blocks of habitat.

# 9.2.3 Project Effects Relevant to Guideline 4.4.C (Creation of Unnatural Movement Corridors)

#### **Boulder Brush Facilities**

The Project would not result in the creation of unnatural movement corridors. Wildlife can freely move through the Project Site and would continue to move freely through the site following Project construction, particularly terrestrial species. The towers, gen-tie poles and lines would not create a barrier to ground-based wildlife movement, nor would they constrain a corridor such that natural wildlife movement would be interrupted. Therefore, impacts to terrestrial wildlife movement from the Project would be **less than significant**.

The presence of gen-tie poles and lines 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. The Project would involve placement of structures and poles within the landscape, which generally not be considered barriers that would interfere with the movement of avian species within and throughout the Project Site. However, there is a potential for collision or electrocution impacts absent mitigation measures. Impacts related to collisions and electrocution from resident or migratory birds and bats are described in Section 6.2.2 as well as below.

**Impact W-4:** Impacts to Wildlife Species from Collisions and Electrocution

Migrating birds would be at risk for electrocution from the overhead power lines (**Impact W-4**). The Boulder Brush Facilities would ensure that all transmission towers and lines are designed to conform to Avian Power Line Interaction Committee (APLIC) standards (**M-BI-8**). The Boulder Brush Facilities shall implement recommendations by the APLIC (2006), 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 towers 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-cm of 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 to help avoid collisions. In addition, the Boulder Brush Facilities will be required to move any dead carcasses which may attract carrion-consuming birds of prey to the Boulder Brush Corridor (**M-BI-9**). Therefore, impacts to wildlife species from collisions and electrocution would be **less than significant** with implementation of mitigation. The full text of these mitigation measures is presented in Section 6.4.1 of this Report.

As described in Section 5.5, potential Project-related impacts to bats related to collision or electrocution would be considered **less than significant**. However, in order to comply with the USFWS Land-Based Wind Energy Guidelines, Tier 4 post-construction studies will be conducted to estimate mortality rates and ensure impacts to individual bats are at a minimum. Similarly, the golden eagle data suggests that the Boulder Brush Corridor and surrounding area (i.e., 10 mile buffer) receives little use by eagles and is not the core territory of any eagles, therefore the chance for collision or electrocution is low and **less than significant**.

#### **Campo Wind Facilities**

The Project would not result in the creation of unnatural movement corridors. Wildlife can freely move through the Project Site and would continue to move freely through the site following Project construction, particularly terrestrial species. The turbines, towers, and gen-tie poles and lines would not create a barrier to ground-based wildlife movement, nor would they constrain a corridor such that natural wildlife movement would be interrupted. Therefore, impacts to terrestrial wildlife movement from the Project would be **less than significant**.

The presence of turbines, gen-tie poles, and lines 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. The Project would involve placement of structures and poles within the landscape which generally not be considered barriers that would interfere with the movement of avian species within and throughout the Project Site. However, there is a potential for collision or electrocution impacts absent mitigation measures. Impacts related to collisions and electrocution from resident or migratory birds are described in Section 6.2.2 as well as below.



#### **Impact W-D:** Impacts to Wildlife Species from Collisions and Electrocution

Birds would be at risk for collisions and/or electrocution with the turbines and towers and these impacts would be significant, absent mitigation (**Impact W-D**). **M-BI-B** recommends implementing APLIC standards, preparing a Bird and Bat Conservation Strategy, requires preparation of a BBCS that includes recommended avoidance and minimization measures, monitoring program, and removing carcasses within the development site to reduce increased attraction of carrion-consuming birds of prey to the turbine and tower areas. Therefore, impacts would be **less than significant**. The full text of these mitigation measures is presented in Section 6.4.2 of this Report.

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, and **less than significant**.

# 9.2.4 Project Effects Relevant to Guideline 4.4.D (Noise and Lighting Impacts to Wildlife Corridors)

#### **Boulder Brush Facilities**

Impacts WLC-2 and WLC-3: Temporary and Permanent Indirect Impacts to Habitat Connectivity and Wildlife Corridors (Boulder Brush Corridor)

Some localized security-related lighting may be required during construction and/or operation. Lighting would conform to County outdoor lighting requirements and therefore, lighting associated with the Project is not expected to result in significant impacts to wildlife corridors related to lighting. Permanent lighting associated with the Project would consist of the operation and maintenance facility, Federal Aviation Administration lighting on selected turbines, and parking areas. These areas would include security lighting designed to minimize light pollution and preserve dark skies, while enhancing safety, security, and functionality.

Project construction would result in noise and ground vibrations through the use of mechanized equipment and increased traffic. Noise would most likely only be a disturbance to those species that are active during the day, since noise levels are less at night. 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.

Boulder Brush Facilities implementation and operation would create stationary noise sources (Appendix G to the EIR (*Acoustical Analysis Report for the Campo Wind Project with Boulder Brush Facilities*)). These sources would include the substation and switchyard, gen-tie line, and maintenance and inspection activities. Boulder Brush Facilities would be unmanned and 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. The Boulder Brush Facilities would feature two 150 kW emergency generators: one at the high-voltage substation and one at the switchyard. The noise from the generators is negligible; for example, at 15,000 feet, the expected one-hour noise exposure level would be less than 10 dBA. Aboveground electrical transmission lines associated with the Boulder Brush Facilities may produce corona during normal operation, but even under "foul" weather conditions that would moisten or wet the conductor surfaces, the resulting noise would only be audible at very close distances and thus not result in an adverse effect. Based on the Caltrans findings and generally low levels of sound emission associated with the Project, long-term noise effects are considered **less than significant**.

Because the Boulder Brush Facilities would be unmanned, increased human activity is not expected to impact wildlife species. No pets are allowed on site. However, there are potential temporary and permanent indirect impacts associated with increased vehicle collisions, predation from exotic species and altering natural drainage (Impact WLC-2 and Impact WLC-3). Implementation of M-BI-2 (biological monitoring), M-BI-4 (SWPPP and construction vehicle speed limits), M-BI-7 (revegetation of temporarily impacted areas) and M-BI-11 (erosion and runoff control) would mitigate these impacts to less than significant because it would restore ephemeral channels to pre-Project contours and ensure the construction site remains trash free and the hydrology is not altered in a way that negatively impacts the drainage. The full text of these mitigation measures is presented in Section 6.4.1 of this Report.

#### **Campo Wind Facilities**

**Impacts WLC-B and WLC-C:** Temporary and Permanent Indirect Impacts to Habitat Connectivity and Wildlife Corridors (Campo Corridor)

Construction-related noise and vibration could occur from equipment used during site preparation and grading, including vegetation clearing, and construction of the Project. Construction noise and vibration levels would vary from hour-to-hour and day-to-day, depending on the equipment in use, the operations being performed, and the distance between the source and receptor. Construction would occur during the day, and no construction is anticipated to take place at night.



No nighttime lighting is proposed for the Campo Wind Facilities during construction (see BMPs listed in Table 5-3). All lighting associated with the operations would be shielded and directed downward to minimize the potential for glare or spillover onto adjacent properties.

Campo Wind Facilities implementation and operation would create stationary noise sources on the Reservation. These sources would include the wind turbines, O&M Facility, Project collector substation, gen-tie lines, and maintenance and inspection activities. Campo Wind Facilities would employ approximately 10 to 12 full-time employees, generating up to 24 daily two-way trips, 7 days per week. While these activities would increase noise levels immediately adjacent to the access road during vehicle pass-bys, these events would not result in a substantial increase in ambient noise. The O&M facility could result in noise impacts during the summer months when rooftop air-cooled condenser units are used. At peak use, the maximum estimated noise levels produced are less than 48 dBA Leq at approximately 200 feet from the building. The collector substation, which would feature a single 35 kV/230 kV transformer (for purposes of this analysis, a continuous source of noise emission as compared to other ancillary systems and equipment at this site that may only produce noise intermittently). At a source-to-receptor distance of at least 300 feet from this transformer, the expected sound pressure level would be less than 48 dBA Lea. The On-Reservation gen-tie line associated with the Boulder Brush Facilities may produce corona during normal operation, but even under foul weather conditions that would moisten or wet the conductor surfaces, the resulting noise would only be audible at very close distances and thus are considered less than significant.

Based on the noise contour modeling in Appendix G to the EIR (*Acoustical Analysis Report for the Campo Wind Project with Boulder Brush Facilities*), the operational noise levels at 60 dBA range from 300 feet to 1,800 feet from the turbine locations, depending on the average wind speed. Based on the Caltrans findings and generally low levels of sound emission associated with the Project, long-term noise effects are considered **less than significant**. Therefore, the operational noise associated with the traffic, O&M facility, substation, and gen-tie line would not result in an adverse noise effect.

While the Campo Wind Facilities will have full-time employees, they will be limited to the O&M Facility building and increased human activity is not expected to occur outside of the building, parking lot and roads; therefore, it would not impact wildlife species. No pets are allowed on site. However, there are potential temporary and permanent indirect impacts associated with increased vehicle collisions, predation from exotic species and altering natural drainage (**Impact WLC-B** and **Impact WLC-C**). Incorporation of the BMPs outlined in Table 5-3 and implementation of **M-BI-C** (General Avoidance and Minimization Measures) would mitigate these impacts to **less than significant** because it would ensure the construction site, provides speed limits for vehicles,



remains trash free and the hydrology is not altered in a way that negatively impacts the drainage. The full text of these mitigation measures is presented in Section 6.4.2 of this Report.

#### 9.2.5 Project Effects Relevant to Guideline 4.4.E (Width of Wildlife Corridors)

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

# 9.2.6 Project Effects Relevant to Guideline 4.4.F (Visual Continuity within Wildlife Corridors)

The Project 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 that would present a visual barrier to wildlife movement; therefore, this impact is **less than significant**.

### 9.3 Cumulative Impact Analysis

Cumulative impacts are discussed in the EIR prepared for the Project. Please refer to subsection 2.3.4 of Section 2.3, Biological Resources. For purposes of assessing cumulative impacts related to the Project, an appropriate geographic scope would include the Peninsular Ranges of the California floristic province, as defined by the Jepson Flora project (2018).

## 9.4 Mitigation Measures and Design Considerations

#### 9.4.1 Boulder Brush Facilities

Mitigation for temporary direct impacts to potential foraging and breeding habitat includes **M-BI-2** (biological monitoring), **M-BI-3** (temporary construction flagging and/or fencing), **M-BI-7** (revegetation of temporary impacts), **M-BI-8** (APLIC standards), **M-BI-9** (removal of carcasses), and **M-BI-11** (erosion and runoff control), which are described in Section 6.4, are applicable for the Boulder Brush Facilities.

#### 9.4.2 Campo Wind Facilities

Mitigation for temporary direct impacts to potential foraging and breeding habitat, impacts to wildlife species from collisions and electrocution, and temporary and permanent indirect impacts to habitat connectivity and wildlife corridors includes **M-BI-B** and **M-BI-C**, which are described in Section 6.4.2, are applicable for the Campo Wind Facilities.



#### 9.5 Conclusions

#### **Boulder Brush Facilities**

**Impact WLC-1:** Temporary Direct Impacts to Habitat Connectivity and Wildlife Corridors (Boulder Brush Corridor)

The significant temporary direct impacts to potential habitat connectivity and wildlife corridors from the Boulder Brush Facilities would be reduced to a level that is less than significant through implementation of **M-BI-2**, **M-BI-3**, and **M-BI-7**, which require biological monitoring, temporary construction flagging and/or fencing, and revegetation of temporary impacts.

There would be no permanent significant direct impacts to wildlife corridors or habitat linkages as a result of the Project.

**Impacts WLC-2 and WLC-3:** Temporary and Permanent Indirect Impacts to Habitat Connectivity and Wildlife Corridors (Boulder Brush Corridor)

There are some temporary and permanent indirect impacts to habitat connectivity and wildlife corridors from the Boulder Brush Facilities would be reduced to a level that is less than significant through implementation of M-BI-2 (biological monitoring), M-BI-4 (SWPPP), M-BI-7 (revegetation—of temporarily impacted areas) and M-BI-11 (erosion and runoff control) would mitigate these impacts to less than significant because it would restore ephemeral channels to pre-Project contours and ensure the construction site remains trash free and the hydrology is not altered in a way that negatively impacts the drainage.

**Impact W-4:** Impacts to Wildlife Species from Collisions and Electrocution

Migratory birds could be injured or killed through electrocution from transmission lines (gen-tie). The Boulder Brush Facilities impacts would be reduced to **less than significant** through implementation **M-BI-8** (APLIC standards) and **M-BI-9** (removal of dead carcasses).

#### **Campo Wind Facilities**

**Impact WLC-A:** Temporary Direct Impacts to Habitat Connectivity and Wildlife Corridors (Campo Corridor)

The significant temporary direct impacts to potential habitat connectivity and wildlife corridors from the Campo Wind Facilities would be reduced to a level that is less than significant through implementation of **M-BI-C** (General Avoidance and Minimization Measures).

**Impacts WLC-B and WLC-C:** Temporary and Permanent Indirect Impacts to Habitat Connectivity and Wildlife Corridors (Campo Corridor)

There are potential temporary and permanent indirect impacts associated with increased predation from exotic species and altering natural drainage (**Impact WLC-B** and **Impact WLC-C**). Incorporation of the BMPs outlined in Table 5-3 and implementation of **M-BI-C** (General Avoidance and Minimization Measures) would mitigate these impacts to **less than significant** because it would ensure the construction site remains trash free and the hydrology is not altered in a way that negatively impacts the drainage.

**Impact W-D:** Impacts to Wildlife Species from Collisions and Electrocution

The Campo Wind Facilities could impact birds through collisions with the turbines and towers or electrocution with transmission lines (gen-tie). These impacts would be significant, absent mitigation (**Impact W-D**). These impacts would be reduced to **less than significant** through implementation of **M-BI-B**.

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#### 10 LOCAL POLICIES, ORDINANCES, AND ADOPTED PLANS

### 10.1 Guidelines for the Determination of Significance

The County's Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources (County of San Diego 2010a) are based on the criteria in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) and were used to analyze potential direct and indirect impacts to biological resources. The following guidelines for the determination of significance come directly from the County's guidelines (County of San Diego 2010a):

- Guideline 4.5: 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 HCP, 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 Natural Communities Conservation Planning Process (NCCP) Guidelines.
  - B. The project would preclude or prevent the preparation of the subregional Natural Communities Conservation Planning Process (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 will 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 Natural Communities Conservation Planning Process (NCCP) Guidelines.
  - E. The project does not conform to the goals and requirements as outlined in any applicable Habitat Conservation Plan (HCP), Habitat Management Plan (HMP), Special Area Management Plan (SAMP), Watershed Plan, or similar regional planning effort.
  - F. For lands within the Multiple Species Conservation Program (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 Natural Communities Conservation Planning Process (NCCP) Guidelines.
- H. The project does not maintain existing movement corridors and/or habitat linkages as defined by the Biological Mitigation Ordinance (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).

### 10.2 Analysis of Project Effects

# 10.2.1 Project Effects Relevant to Guideline 4.5.A (Coastal Sage Scrub Habitat Loss)

The Boulder Brush Facilities and Campo Wind Facilities development footprints do not support, and therefore would not impact, coastal sage scrub vegetation.

## 10.2.2 Project Effects Relevant to Guideline 4.5.B (NCCP Planning)

The Campo Wind Facilities are not subject to NCCP planning and therefore not discussed below.

Although the County and Wildlife Agencies (i.e., USFWS and CDFW) have developed a list of covered species and have created a preliminary draft map of the focused conservation areas, the East County MSCP Plan currently has no current schedule for completion. The Project would not preclude or prevent the preparation of the subregional NCCP because the Project has been planned in accordance with the general planning principles of the MSCP and in consideration of future preparation of the East County MSCP 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 6.4 above) 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 Project applicability/compliance, are listed in Table 10-1, East County MSCP Planning Agreement Conservation Objectives.

Table 10-1
East County MSCP Planning Agreement Conservation Objectives

Concernation Objective	Consistency with the Planning Agreement
Conservation Objective  Provide for the protection of species, natural communities, and ecosystems on a landscape level;	The Boulder Brush Facilities, 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 Boulder Brush Facilities, 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 Boulder Brush Facilities, 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 Boulder Brush Corrdidor to determine sensitive habitat areas. Mitigation follows the County guidelines.
Preserve habitat and contribute to the recovery of Covered Species;	The Boulder Brush Facilities, 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 does not support candidate or species in peril. The Boulder Brush Facilities 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 species-specific goals and objectives; and	Although there is no draft East County MSCP Plan to provide species-specific goals and objectives, the proposed Boulder Brush Facilities 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 10-1
East County MSCP Planning Agreement Conservation Objectives

Conservation Objective	Consistency with the Planning Agreement
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 Boulder Brush Facilities 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.

### 10.2.3 Project Effects Relevant to Guideline 4.5.C (RPO Wetlands)

#### **Boulder Brush Facilities**

There are RPO wetlands along Tule Creek and Ribbonwood Road within the Boulder Brush Corridor. These impacts are discussed in Section 7.2.5, Project Effects Relevant to Guideline 4.2.E (Resource Protection Ordinance Buffers) (**Impact V-5**). Absent mitigation, impacts to RPO wetlands and wetland buffers would be significant. Impacts to these resources would be mitigated through **M-BI-2** (biological monitoring), **M-BI-3** (temporary construction flagging and/or fencing), **M-BI-4** (SWPPP), **M-BI-5** (habitat preservation), **M-BI-7** (revegetation of temporary impacts), **M-BI-11** (erosion and runoff control), **M-BI-12** (regulation of chemical pollutants), and **M-BI-16** (federal and state agency permits). Within implementation of these mitigation measures the impacts would be less than 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 7.2.5, Project Effects Relevant to Guideline 4.2.E (Resource Protection Ordinance Buffers) (**Impact V-D**). Therefore mitigation is not proposed. This impact would remain **significant and unavoidable**.

#### 10.2.4 Project Effects Relevant to Guideline 4.5.D (Coastal Sage Scrub)

The Project development footprint does not support, and therefore would not impact, coastal sage scrub vegetation.



#### 10.2.5 Project Effects Relevant to Guideline 4.5.E (Regional Planning Efforts)

The Boulder Brush Facilities conforms to the goals and requirements as outlined in the East County MSCP Planning Agreement Conservation Objectives (Table 10-1); therefore, the Boulder Brush Facilities conforms to the goals and requirements as outlined in the regional planning effort. The Reservation and Campo Wind Facilities are not subject to these regional planning efforts. 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.

# 10.2.6 Project Effects Relevant to Guideline 4.5.F (Biological Mitigation Ordinance)

Since there is no approved East County MSCP Plan and no associated BMO, this guideline does not apply to the Boulder Brush Facilities and therefore no impacts would occur. The Reservation and the Campo Wind Facilities are not subject to the County's MSCP.

# 10.2.7 Project Effects Relevant to Guideline 4.5.G (Connectivity between Areas of High Habitat Value)

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.

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.

# 10.2.8 Project Effects Relevant to Guideline 4.5.H (Movement Corridors Defined in the BMO)

Since there is no approved East County MSCP Plan and no associated BMO, this guideline does not apply to the Boulder Brush Facilities and therefore **no impacts** would occur. The Campo Wind Project is not subject to the County's MSCP.

#### 10.2.9 Project Effects Relevant to Guideline 4.5.I (Narrow Endemics)

Narrow endemic species are evaluated under the County Guidelines for Determining Significance for Biological Resources. There are none within the Boulder Brush Corridor; therefore, **no impacts** would occur. There are no narrow endemics identified in the Campo Corridor.

#### 10.2.10 Project Effects Relevant to Guideline 4.5.J (Listed Species)

#### **Boulder Brush Facilities**

No federally or state-listed plant species have been observed within the Boulder Brush Corridor.

Quino checkerspot butterfly is known to occur in the Boulder Brush Corridor and there are impacts to occupied habitat (**Impact W-5**). This impact would be reduced to **less than significant** through implementation of mitigation measure **M-BI-1**, which describes the Section 7 consultation process with the USFWS, off-site mitigation for permanent impacts to Quino checkerspot butterfly habitat, fencing and signage around occupied Quino checkerspot butterfly habitat, and working in suitable habitat areas when the adult and larval activity is low.

#### **Campo Wind Facilities**

Quino checkerspot butterfly is known to occur in the Campo Corridor and there are impacts to potentially occupied habitat (**Impact W-A**). This impact would be reduced to **less than significant** through implementation of the **M-BI-A**, which describes the Section 7 consultation process with the USFWS, off-site mitigation for permanent impacts to Quino checkerspot butterfly habitat, fencing and signage around occupied Quino checkerspot butterfly habitat, and working in suitable habitat areas when the adult and larval activity is low. The full text of these mitigation measures is presented in Section 6.4.2 of this Report.



#### 10.2.11 Project Effects Relevant to Guideline 4.5.K (Migratory Birds)

#### **Boulder Brush Facilities**

Temporary construction-related impacts to migratory birds and active migratory bird nests and/or eggs would be significant, absent mitigation (**Impact W-3**). This impact would be mitigated through **M-BI-6** (preconstruction surveys for nesting birds and setbacks), which prevents direct loss of active nests and indirect disturbance to active nests.

#### **Campo Wind Facilities**

The Campo Wind Facilities could impact nesting birds protected under the MBTA (**Impact W-C**). These impacts would be reduced to **less than significant** through implementation of **M-BI-B** (Avian-Specific Avoidance, Minimization, and Mitigation Measures). The full text of these mitigation measures is presented in Section 6.4.2 of this Report.

#### 10.2.12 Project Effects Relevant to Guideline 4.5.L (Eagles)

#### **Boulder Brush Facilities**

The Boulder Brush Facilities would not have site-specific impacts on golden eagle nesting. Impacts to 69.8 acres of suitable foraging habitat for eagles would be significant, absent mitigation (included with raptor foraging impacts, **Impact W-2**). This impact would be mitigated through **M-BI-5** (habitat preservation and management), which requires conservation of 133.2 acres of suitable raptor foraging habitat, of which, 79.1 acres is suitable eagle foraging habitat. 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 Corridor is not expected to cause take of eagles pursuant to the Bald and Golden Eagle Protection Act.

#### **Campo Wind Facilities**

The Campo Wind Facilities would result in impacts to 785.7 acres of suitable foraging habitat for raptors, including eagles that would be less than significant because the overall impacts are less than 5% of the total Reservation Boundary (see Section 6.2.6, **Impact W-B**). Based on the low golden eagle use on site for foraging, potential collision impacts are considered less than significant.



#### 10.3 Cumulative Impact Analysis

Cumulative impacts are discussed in the EIR prepared for the Project. Please refer to Section 2.3, Biological Resources, of the EIR. For purposes of assessing cumulative impacts related to the Project, an appropriate geographic scope would include the Peninsular Ranges of the California floristic province, as defined by the Jepson Flora project (2018).

### 10.4 Mitigation Measures and Design Considerations

No other mitigation is proposed for impacts to local policies, ordinances, and plans because the proposed Project remains consistent with all applicable approved planning documents/plans.

#### 10.5 Conclusions

Implementation of the Project would not conflict with currently established applicable local policies, ordinances, or plans. Biological resources protected under these documents are expected to remain safeguarded given the compliance of the Project with the stipulations indicated in these regulations.

#### **Boulder Brush Facilities**

**Impact W-2:** Permanent Direct Impacts to Golden Eagle Foraging Habitat

Impacts to golden eagle foraging habitat would be mitigated through the preservation of habitat within an off-site location (**M-BI-5**). These impacts would be reduced to **less than significant** levels through implementation of **M-BI-5** (habitat preservation).

**Impact W-3:** Permanent Direct Impacts to Special-Status Wildlife Species (Nesting Birds)

The Boulder Brush Facilities could impact nesting birds protected under the MBTA and California Fish and Game Code. These impacts would be reduced to **less than significant** through implementation of **M-BI-6** (preconstruction surveys for nesting birds).

**Impact W-5:** Permanent Direct Impacts to Potentially Occupied Quino Checkerspot Butterfly

The significant permanent direct impacts to 54.8 acres of potentially occupied Quino checkerspot butterfly habitat would be reduced to less than significant through implementation of mitigation measure **M-BI-1**, which describes the Section 7 consultation process with the USFWS, off-site mitigation for permanent impacts to Quino checkerspot butterfly habitat, fencing and signage around occupied Quino checkerspot butterfly habitat, and working in suitable habitat areas when the adult and larval activity is low.



Impact V-5: Permanent Direct Impacts to RPO Wetland and Wetland Buffer within the Boulder Brush Corridor

The significant permanent, direct impacts to RPO wetland and wetland buffer (Table 7-2) would be reduced to less than significant through 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 restoration of temporary impacts), 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

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

Permanent direct impacts to 272.8 acres of potentially occupied Quino checkerspot butterfly habitat would be reduced to **less than significant** through implementation **M-BI-A**, which describes the Section 7 consultation process with the USFWS, off-site mitigation for permanent impacts to Quino checkerspot butterfly habitat, fencing and signage around occupied Quino checkerspot butterfly habitat, and working in suitable habitat areas when the adult and larval activity is low.

**Impact W-B:** Permanent Direct Impacts to Golden Eagle Foraging Habitat

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.

**Impact W-C:** Impacts to Active Nests

The Project could impact nesting birds protected under the MBTA. These impacts would be reduced to **less than significant** through implementation of **M-BI-B** (the Avian-Specific Avoidance, Minimization, and Mitigation Measures).

**Impact V-D:** Permanent Direct Impacts to RPO Wetland and Wetland Buffer within the Campo Corridor

The Campo Wind Facilities On-Reservation 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.** 



#### 11 SUMMARY OF PROJECT IMPACTS AND MITIGATION

Sections 6.5, 7.5, 8.5, 9.5, and 10.5 summarize the impacts and associated mitigation for each significant impact that may occur as a result of the Project. Table 11-1, Summary of Impacts and Mitigation, summarizes the impacts and mitigation required for impacts to special-status species, vegetation communities, and jurisdictional areas.



Table 11-1 Summary of Significant Impacts and Mitigation

Section of Report Analysis Is Described	Facilities/Impact	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter				
	Guideline 4.1: The project would have a substantial adverse effect, either directly or through habitat modifications, on a candidate, sensitive, or special status species listed in pocal or regional plans, policies, or regulations, or by California Department of Fish and Game or U.S. Fish and Wildlife Service.									
6.2.1	Boulder Brush Impact W-5	Federally listed wildlife (Quino checkerspot butterfly)	Permanent direct	M-BI-1 (Quino Checkerspot Butterfly-Specific Avoidance, Minimization, and Mitigation Measures)	Less than significant	4.1A				
6.2.1	Campo Wind Impact W-A	Federally listed wildlife (Quino checkerspot butterfly)	Permanent direct	M-BI-A (Quino Checkerspot Butterfly-Specific Avoidance, Minimization, and Mitigation Measures)	Less than significant	4.1A				
6.2.2	Boulder Brush Impact SP-1	Special-status plants	Temporary direct	M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging and/or fencing), and M- BI-4 (SWPPP BMPs, including restrictions on plantings, temporary equipment staging and storage, and construction vehicle speed limits)	Less than significant	4.1B				
6.2.2	Boulder Brush Impact SP-2	Special-status plants	Permanent direct	M-BI-5 (habitat preservation)	Less than significant	4.1B				
6.2.2	Campo Wind Impact SP-A	Special-status plants	Permanent direct	None. Mitigation for County listed special status plants not required on the Reservation.	Significant and unavoidable	4.1B				



Table 11-1 Summary of Significant Impacts and Mitigation

Section of Report Analysis Is Described	Facilities/Impact	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
6.2.2	Boulder Brush Impact W-1	Special-status wildlife	Temporary direct	M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging and/or fencing), M-BI-4 (SWPPP), M-BI-6 (nesting bird surveys), and M-BI-7 (revegetation restoration of temporary impacts)	Less than significant	4.1B
6.2.2	Boulder Brush Impact W-2	Special-status wildlife	Permanent direct	M-BI-5 (habitat preservation)	Less than significant	4.1B
6.2.2	Boulder Brush Impact W-3	Special-status wildlife (active nests)	Permanent direct	M-BI-6 (nesting bird surveys)	Less than significant	4.1B
6.2.2	Boulder Brush Impact W-4	Special-status wildlife (bird collisions)	Permanent direct	M-BI-8 (APLIC standards) and M-BI-9 (carcass removal)	Less than significant	4.1B
6.2.2	Campo Wind Impact W-B	Special-status wildlife (habitat)	Permanent direct	None. Impact is considered less than significant	Less than significant	4.1B
6.2.2	Campo Wind Impact W-C	Special-status wildlife (active nests)	Permanent direct	M-BI-B (Avian-Specific Avoidance, Minimization, and Mitigation Measures)	Less than significant	4.1B
6.2.2	Campo Wind Impact W- D	Special-status wildlife (bird collisions)	Permanent direct	M-BI-B (Avian-Specific Avoidance, Minimization, and Mitigation Measures)	Less than significant	4.1B
6.2.3	Campo Wind Impact SP-A	Special-status plants	Permanent direct	None	Significant and unavoidable	4.1C
6.2.3	Boulder Brush Impact W-2	Special-status wildlife (habitat for Group 2 species)	Permanent direct	M-BI-5 (habitat preservation)	Less than significant	4.1C

Table 11-1 Summary of Significant Impacts and Mitigation

Section of Report Analysis Is Described	Facilities/Impact	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
6.2.3	Campo Wind Impact W-B	Special-status wildlife (raptor foraging habitat)	Permanent direct	None. Impact is considered less than significant.	Less than significant	4.1C
6.2.6	Boulder Brush Impact W-2	Special-status wildlife	Permanent direct	M-BI-5 (habitat preservation)	Less than significant	4.1F
6.2.6	Campo Wind Impact W-B	Special-status wildlife (raptor foraging habitat)	Permanent direct	None. Impact is considered less than significant.	Less than significant	4.1F
6.2.8	Boulder Brush Impact SP-3	Special-status plants	Temporary indirect	M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging and/or fencing), M-BI-4 (SWPPP), M-BI-10 (fugitive dust control), M-BI-11 (erosion and runoff control), and M-BI-12 (regulation of chemical pollutants)	Less than significant	4.1H
6.2.8	Boulder Brush Impact SP-4	Special-status plants	Permanent indirect	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)	Less than significant	4.1H
6.2.8	Campo Wind Impact SP-B	Special-status plants	Temporary indirect	M-BI-C (General Avoidance and Minimization Measures)	Less than significant	4.5L
6.2.8	Campo Wind Impact SP-C	Special-status plants	Permanent indirect	M-BI-C (General Avoidance and Minimization Measures)	Less than significant	

Table 11-1 Summary of Significant Impacts and Mitigation

Section of Report Analysis Is Described	Facilities/Impact	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
6.2.8	Boulder Brush Impact W-6	Special-status wildlife	Temporary indirect	M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging and/or fencing), M-BI-4 (SWPPP), M-BI-6 (nesting bird survey), M-BI-7 (revegetationreplanting temporarily impacts areas), 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 species)	Less than significant	4.1H
6.2.8	Boulder Brush Impact W-7	Special-status wildlife	Permanent indirect	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), and M-BI-15 (access control)	Less than significant	4.1H
6.2.8	Campo Wind Impact W-E	Special-status wildlife	Temporary indirect	M-BI-C (General Avoidance and Minimization Measures)	Less than significant	4.1H
6.2.8	Campo Wind Impact W-F	Special-status wildlife	Permanent indirect	M-BI-C (General Avoidance and Minimization Measures)	Less than significant	4.1H
6.2.12	Boulder Brush Impact W-2, Impact W-6, Impact W-7	Special-status wildlife (sensitive bird nesting)	Temporary and Permanent indirect	M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging and/or fencing), M-BI-4 (SWPPP), M-BI-5 (habitat preservation), M-BI-6 (nesting	Less than significant	4.1L

Table 11-1 Summary of Significant Impacts and Mitigation

Section of Report Analysis Is Described	Facilities/Impact	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
				bird survey), M-BI-7 (revegetationreplanting temporarily impacts 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)		
6.2.12	Campo Wind Impact W-B	Special-status wildlife (sensitive bird nesting)	Permanent direct	None. Impact is considered less than significant.	Significant and unavoidable	4.1L
6.2.12	Campo Wind Impact W-E, Impact W-F	Special-status wildlife (sensitive bird nesting)	Temporary and Permanent indirect	M-BI-C (General Avoidance and Minimization Measures)	Less than significant	4.1L
		substantial adverse effect on riparian of Fish and Game or U.S. Fish and W		sensitive natural community identified	d in local or regional pla	ns, policies,
7.2.1	Boulder Brush Impact V-1	Sensitive vegetation communities	Temporary direct	M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging and/or fencing), M-BI-4 (SWPPP), M-BI-5 (habitat preservation), M-BI-7 (revegetationresteration of temporary impacts), and M-BI- 16 (federal and state agency permits)	Less than significant	4.2A

Table 11-1 Summary of Significant Impacts and Mitigation

Section of Report Analysis Is Described	Facilities/Impact	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
7.2.1	Boulder Brush Impact V-2	Sensitive vegetation communities	Permanent direct	M-BI-5 (habitat preservation) and M-BI-16 (federal and state agency permits)	Less than significant	4.2A
7.2.1	Campo Wind Impact V-A	Sensitive vegetation communities	Permanent direct	None. Impacts to vegetation communities or land covers on the Reservation are not subject to the mitigation requirements in the County guidelines.	Significant and unavoidable	4.2A
7.2.2	Boulder Brush Impact JAR-1	Jurisdictional aquatic resources	Temporary direct	M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging and/or fencing), M-BI-4 (SWPPP), M-BI-5 (habitat preservation), M-BI-7 (revegetationrestoration of temporary impacts), and M-BI- 16 (federal and state agency permits)	Less than significant	4.2B
7.2.2	Boulder Brush Impact JAR-2	Jurisdictional aquatic resources	Permanent direct	M-BI-5 (habitat preservation) and M-BI-16 (federal and state agency permits)	Less than significant	4.2B
7.2.2	Boulder Brush Impact JAR-3	Jurisdictional aquatic resources	Temporary indirect	M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging and/or fencing), M-BI-4 (SWPPP), M-BI-11 (erosion and runoff control), M-BI-12 (regulation of chemical	Less than significant	4.2D

Table 11-1 Summary of Significant Impacts and Mitigation

Section of Report Analysis Is Described	Facilities/Impact	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
				pollutants), and <b>M-BI-16</b> (federal and state agency permits)		
7.2.2	Boulder Brush Impact JAR-4	Jurisdictional aquatic resources	Permanent indirect	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)	Less than significant	4.2B
7.2.2	Campo Wind Impact JAR-A	Jurisdictional aquatic resources	Permanent direct	M-BI-D (Jurisdictional Waters and Wetlands-Specific Avoidance, Minimization, and Mitigation Measures)	Less than significant	4.2B
7.2.2	Campo Wind Impact JAR-B	Jurisdictional aquatic resources	Temporary indirect	M-BI-C (General Avoidance and Minimization Measures), and M-BI-D (Jurisdictional Waters and Wetlands-Specific Avoidance, Minimization, and Mitigation Measures).	Less than significant	4.2B
7.2.2	Campo Wind Impact JAR-C	Jurisdictional aquatic resources	Permanent indirect	M-BI-C (General Avoidance and Minimization Measures), and M-BI-D (Jurisdictional Waters and Wetlands-Specific Avoidance, Minimization, and Mitigation Measures)	Less than significant	4.2B

Table 11-1 Summary of Significant Impacts and Mitigation

Section of Report Analysis Is Described	Facilities/Impact	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
7.2.4	Boulder Brush Impact V-3	Sensitive vegetation communities	Temporary indirect	M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging and/or fencing), M-BI-4 (SWPPP), M-BI-7 (revegetationreplanting temporarily impacts areas), M- BI-10 (fugitive dust control), M- BI-11 (erosion and runoff control), and M-BI-12 (regulation of chemical pollutants)	Less than significant	4.2D
7.2.4	Boulder Brush Impact V-4	Sensitive vegetation communities	Permanent indirect	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)	Less than significant	4.2D
7.2.4	Campo Wind Impact V-B	Sensitive vegetation communities	Temporary indirect	M-BI-C (General Avoidance and Minimization Measures)	Less than significant	4.2D
7.2.4	Campo Wind Impact V-C	Sensitive vegetation communities	Permanent indirect	M-BI-C (General Avoidance and Minimization Measures)	Less than significant	4.2D
7.2.5	Boulder Brush Impact V-5	RPO wetland and wetland buffer	Permanent direct	M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging and/or fencing), M-BI-4 (SWPPP), M-BI-5 (habitat preservation), M-BI-7	Less than significant	4.2E



Table 11-1 Summary of Significant Impacts and Mitigation

Section of Report Analysis Is Described	Facilities/Impact	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
				(revegetationreplanting temporarily impacts areas), M-BI-11 (erosion and runoff control), M-BI-12 (regulation of chemical pollutants), and M-BI-16 (federal and state agency permits).		
7.2.5	Campo Wind Impact V-D	RPO wetland and wetland buffer	Permanent direct	None. The Campo Wind Facilities On-Reservation are not subject to the County RPO.	Significant and unavoidable	4.2E
·		substantial adverse effect on federallugh direct removal, filling, hydrological	• •	•	lean Water Act (includir	g, but not limited
8.2	Boulder Brush Impact JAR-1, Impact JAR-2, Impact JAR-3, and Impact JAR-4	Jurisdictional aquatic resources	Temporary and Permanent direct and indirect	M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging and/or fencing), M-BI-4 (SWPPP), M-BI-5 (habitat preservation), M-BI-7 (revegetation restoration of temporary impacts), M-BI-11 (erosion and runoff control), M- BI-12 (regulation of chemical pollutants), M-BI-13 (prevention of invasive plant species), and M-BI-16 (federal and state agency permits)	Less than significant	4.3
8.2	Campo Wind	Jurisdictional aquatic resources	Temporary and Permanent	M-BI-C (General Avoidance and Minimization Measures) M-BI-D	Less than significant	4.3

Table 11-1 Summary of Significant Impacts and Mitigation

Section of Report Analysis Is					Level of Significance After	Guideline Number and
Described	Facilities/Impact	Impacted Resource	Impact Type	Proposed Mitigation	Mitigation	Letter
	Impact JAR-A, Impact JAR-B, and Impact JAR-C		direct and indirect	(Jurisdictional Waters and Wetlands-Specific Avoidance, Minimization, and Mitigation Measures)		
		e substantially with the movement of a use of native wildlife nursery sites.	a native resident or	migratory fish or wildlife species, or	with established native r	esident or
9.2.1	Boulder Brush Impact WLC-1	Wildlife Movement	Temporary direct	M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging and/or fencing), and M- BI-7 (revegetationrestoration of temporary impacts)	Less than significant	4.4A
9.2.1	Campo Wind Impact WLC-A	Wildlife Movement	Temporary direct	M-BI-C (General Avoidance and Minimization Measures)	Less than significant	4.4A
9.2.3	Boulder Brush Impact W-4	Special-status wildlife (bird collisions)	Permanent direct	M-BI-8 (APLIC standards) and M-BI-9 (carcass removal)	Less than significant	4.4C
9.2.3	Campo Wind Impact W-D	Special-status wildlife (bird collisions)	Permanent direct	M-BI-B (Avian-Specific Avoidance, Minimization, and Mitigation Measures)	Less than significant	4.4C
9.2.4	Boulder Brush Impact WLC-2 and Impact WLC- 3	Habitat Connectivity and Wildlife Corridors	Temporary and Permanent indirect	M-BI-2 (biological monitoring), M-BI-4 (SWPPP), M-BI-7 (revegetationreplanting temporarily impacts areas), and M-BI-11 (erosion and runoff control)	Less than significant	4.4D

Table 11-1 Summary of Significant Impacts and Mitigation

Section of Report Analysis Is Described	Facilities/Impact	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter			
9.2.4	Campo Wind Impact WLC-B and Impact WLC- C	Habitat Connectivity and Wildlife Corridors	Temporary and Permanent indirect	M-BI-C (General Avoidance and Minimization Measures)	Less than significant	4.4D			
<b>Guideline 4.5:</b> 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, Natural Community Conservation Plan, or other approved local, regional or state HCP.									
10.2.3	Boulder Brush Impact V-5	RPO wetland and wetland buffer	Permanent direct	M-BI-2 (biological monitoring), M-BI-3 (temporary construction flagging and/or fencing), M-BI-4 (SWPPP), M-BI-5 (habitat preservation), M-BI-7 (revegetationreplanting temporarily impacts areas), M- BI-11 (erosion and runoff control), M-BI-12 (regulation of chemical pollutants), and M-BI- 16 (federal and state agency permits).	Less than significant	4.5C			
10.2.3	Campo Wind Impact V-D	RPO wetland and wetland buffer	Permanent direct	None. The Campo Wind Facilities On-Reservation are not subject to the County RPO.	Significant and unavoidable	4.5C			
10.2.10	Boulder Brush Impact W-5	Federally listed wildlife (Quino checkerspot butterfly)	Permanent direct	M-BI-1 (Quino Checkerspot Butterfly-Specific Avoidance, Minimization, and Mitigation Measures)	Less than significant	4.5J			
10.2.10	Campo Wind Impact W-A	Federally listed wildlife (Quino checkerspot butterfly)	Permanent direct	<b>M-BI-A</b> (Quino Checkerspot Butterfly-Specific Avoidance,	Less than significant	4.5J			

Table 11-1 Summary of Significant Impacts and Mitigation

Section of Report Analysis Is Described	Facilities/Impact	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
				Minimization, and Mitigation Measures)		
10.2.11	Boulder Brush Impact W-3	Migratory birds	Temporary direct	M-BI-6 (nesting bird surveys)	Less than significant	4.5K
10.2.11	Campo Wind Impact W-C	Migratory birds	Permanent direct	M-BI-B (Avian-Specific Avoidance, Minimization, and Mitigation Measures)	Less than significant	4.5K
10.2.12	Boulder Brush Impact W-2	Special-status wildlife (raptor foraging habitat)	Permanent direct	M-BI-5 (habitat preservation)	Less than significant	4.5L
10.2.12	Campo Wind Impact W-B	Special-status wildlife (raptor foraging habitat)	Permanent direct	None. Impact is considered less than significant.	Less than significant	4.5L



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#### 13 LIST OF PREPARERS

This report was prepared by Dudek biologists Callie Amoaku, Janice Wondolleck, and Patricia Schuyler. Review was provided by Brock Ortega. Graphics and GIS analyses were provided by Mark McGinnis.



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