

Attachment D: Special-status Wildlife with the Potential to Occur in the Borel Hydroelectric Project Boundary

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Table D-1. Special-status Wildlife with the Potential to Occur within the Borel Project Boundary

Name	Federal Status	State Status	BLM/Forest Service Status	Habitat Characteristics	Known Occurrences	Impacts Analyzed	Rationale
Invertebrates							
Monarch butterfly (<i>Danaus m</i>)	FC	None	None	Overwinters along the coast from Mendocino County south into Baja California in wind-protected groves of gum (<i>Eucalyptus spp.</i>), Monterey pine (<i>Pinus radiata</i>), or Monterey cypress (<i>Hesperocyparis macrocarpa</i>) with nectar and water sources nearby (IELP 2012). Migrates through the Borel Project area and may even breed on native milkweeds (<i>Asclepias spp.</i>) (Western Monarch Milkweed Mapper 2022).	Reported near Lake Isabella in a garden in 2017, in the Borel Project area (Western Monarch Milkweed Mapper 2022).	Yes	Known from nearby occurrence and milkweed observed on the Borel Project.
Kern primrose sphinx moth (<i>Euproserpinus euterpe</i>)	FT	None	None	Populations include distinct (not geographically connected) colonies at Walker Basin, Carrizo Plain National Monument, and Cuyama Valley near New Cuyama and Ventucopa in Santa Barbara and Ventura Counties. Host plant is <i>Camissonia</i> sp. (USFWS 2020).	BIOS QuickView (QV): Piute Peak, Breckenridge Mtn. (CDFW 2021c).	No	Outside of known range. Not on IPaC (USFWS 2022). Only known from two places: Walker Basin is 18.6 miles south from the town of Lake Isabella. Carrizo Plain NM is 110 miles west of the town of Lake Isabella. Cuyama Valley is 137 miles west of the town of Lake Isabella. Additionally, no host plants were identified during botanical surveys in 2021 or 2022.
San Emigdio blue butterfly (<i>Plebulina emigdionis</i>)	None	None	FSS	Endemic to southern California, with observations in the last twenty years exclusively from the vicinity of Lake Isabella, Kern County. Habitat consists of dry river courses and intermittent stream sides as well as adjacent flats where the host plant, four-winged saltbush (<i>Atriplex canescens</i>), occurs (NatureServe 2021).	CNDDB occurrence (4) located within the center of the town of Isabella (CDFW 2021b).	No	Not listed on the Sequoia National Forest. Has no other special-status listing.
Amphibians							
Fairview slender salamander (<i>Batrachoseps bramei</i>)	None	None	FSS	Favors north-facing talus-covered slopes in narrow canyons. Upper Kern River Canyon along the west side of Lake Isabella, on the east and west sides of the river, from Wofford Heights north to 1 kilometer north of where South Falls Creek flows into the Kern River (Nafis 2021).	BIOS QV: LIN (CDFW 2021c).	No	Known from Kern River canyon only, which is outside of the Borel Project.
Relictual slender salamander (<i>Batrachoseps relictus</i>)	FPE	SSC	None	Endemic only to Breckenridge Mountain, though once found in the lower Kern River (Nafis 2021). Current occurrences on Lucas and Mill Creeks. Proposed Critical Habitat downstream of the Borel Project (USFWS 2022).	BIOS QV: Mt Adelaide, Democrat Hot Springs (CDFW 2021c).	No	Outside of known range
Kern Canyon slender salamander (<i>Batrachoseps simatus</i>)	FPT	ST	FSS	Known only from the lower Kern River Canyon in Tulare and Kern Counties. Found from elevations of 1,000 to 4,000 feet. Prefers valley-foothill hardwood, valley-foothill hardwood-conifer, and mixed chaparral habitats (CDFW 2021a). All currently known locations are from the south side of the Kern River canyon, with only 2% of available habitat found to be occupied (Nafis 2022). Proposed Critical Habitat will be in the Project, but it is currently not occupied by the species (USFWS 2022).	This species identified in SCE's Sensitive Species Protection Plan (SCE 2008), but not found during the relicensing surveys in 2001 and 2003. Fourteen individuals observed at the Lake Isabella-Hot Springs Valley Wetlands Project on May 22, 2020 (iNaturalist 2021).	Yes	Known from occurrences on Bodfish and Erskine Creeks upstream of the Project, as well as Kern River canyon tributaries downstream of the Project. In SCE's Sensitive Species Protection Plan (SCE 2008), the area around the Powerhouse and under nearby flumes was identified as possible habitat. Potential habitat also exists on Bodfish and Erskine Creeks in the area of the Project, but is currently unoccupied (USFWS 2022).
Yellow-blotched ensatina (<i>Ensatina escholtzii croceata</i>)	None	None	FSS, BLM-S	Palustrine habitats include riparian zones, while terrestrial habitats include hardwood forests. Species is known to prefer shaded slopes with abundant leaf litter, rock, logs, and/or debris to take cover in/under. Individuals known in abundance in areas with large volumes of woody debris (NatureServe 2021).	This species is identified in SCE's Sensitive Species Protection Plan (SCE 2008), but not found during the relicensing surveys in 2001 and 2003. Not observed in the Borel Project area with the closest sighting approximately 5 kilometers south of Lake Isabella in 2019 (iNaturalist 2021).	Yes	Suitable habitat present

Name	Federal Status	State Status	BLM/Forest Service Status	Habitat Characteristics	Known Occurrences	Impacts Analyzed	Rationale
Foothill yellow-legged frog (<i>Rana boylii</i>)	None	SE, SSC Note: the 3 most southerly clades (Southwest/ South Coast, East/ Southern Sierra, and West/Central Coast) are listed as SE	FSS, BLM-S	Ranges in the northern half of California except for the Central Valley, Modoc Plateau, and eastern side of the Sierra Nevada Mountains. Generally found in shallow flowing streams and rivers with at least cobble sized substrate. Breeding generally occurs at the margins of wide shallow channels with reduced flow variation near tributary confluences. Specifically, egg masses are placed in low flow locations on or under rocks with preferred substrates being boulders, cobbles, or gravel. Eggs have been found at depths to 34 inches in water velocities of 0 - 0.69 feet per second and at most 40 feet from shore. Maximum water temperature for breeding is 79°F and 48 to 70°F is the preferred range. Tadpoles avoid areas below 55°F and prefer temperatures between 62°F and 72 °F (Thomson et al. 2016). Inhabits streams in the foothills of California (Forest Service 2016)	BIOS QV: Mt Adelaide, Miracle Hot Springs, Lake Isabella South, Glennville, Democrat Hot Springs, Breckenridge Mtn. (CDFW 2021c). All known occurrences long since extirpated (CDFW 2021b).	No	Suitable habitat is not present within the Borel Project and all known occurrences in the vicinity extirpated.
California red-legged frog (<i>Rana draytonii</i>)	FT	SSC	None	Ponds and streams in humid forests, woodlands, grasslands, coastal scrub, and stream sides with plant cover in lowlands or foothills. Breeding habitat includes permanent or seasonal water bodies holding water for at least 20 weeks in most years, including lakes, ponds, small reservoirs, slow streams, marshes, bogs, and swamps. Ephemeral wetland habitats require animal burrows or other moist refuges for estivation when the wetlands are dry. Occurs from sea level to 5,000 feet in elevation. Occurs along the Coast Ranges from Mendocino County south to northern Baja California, and inland across the northernmost reaches of the Sacramento Valley and locally south through portions of the Sierra Nevada foothills as far south as northern Tulare County (Nafis 2021).	In IPaC, but no known occurrences in Borel Project area or surrounding quads (USFWS 2021b).	No	Outside of known historic and current range.
Southern mountain yellow-legged frog (<i>Rana mucosa</i>)	FE	SE	None	A now extinct isolated cluster of population found on Breckenridge Mountains, approximately 20 miles southwest of the town of Lake Isabella. Closest record is museum specimen at Decimal Latitude 35.7529 and Decimal Longitude -118.33 (approximately 5 miles east of Kernville) collected in 1875 and specimen is housed at the Smithsonian National Museum of History (Amphibiaweb 2018).	BIOS QuickView: Breckenridge Mtn. (CDFW 2021c).	No	Outside of known range per USFWS (USFWS 2012). Species not on IPaC list (USFWS 2021b).
Reptiles							
Southern Sierra legless lizard (<i>Anniella campi</i>)	None	SSC	FSS	Little is known about this species and this information is based on <i>Anniella pulchra</i> before it was split into five species. Moisture is essential for this species which also needs warm loose soil with plant cover. Found in sparsely vegetated areas of chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with riparian tree cover. Leaf litter under trees and bushes in sunny areas often indicate suitable cover (Papenfuss and Parham 2013). Known from only three localities along the western edge of the Mojave Desert in Inyo and Kern Counties (Nafis 2021).	CNDB occurrence 4 on the Kern River a few miles from the Borel Project, dating to 2008 (CDFW 2021b). Next closest sighting approximately 5 kilometers southeast of Lake Isabella in 2006 (iNaturalist 2021).	Yes	Suitable habitat present.
Southern California legless lizard (<i>Anniella stebbinsi</i>)	None	SSC	FSS	Little is known about this species and this information is based on <i>Anniella pulchra</i> before it was split into five species. Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodland, desert scrub, sandy washes, and stream terraces (Papenfuss and Parham 2013). Found throughout southern California south of the Transverse Ranges into northern Baja California, Mexico. Populations in the Tehachapi and Piute Mountains of Kern County are disjunct from the main distribution of this species to the south. Therefore, the distribution of <i>Anniella stebbinsi</i> is presumably bisected by southern populations of <i>Anniella pulchra</i> ranging from the Santa Barbara region into the Antelope Valley (Nafis 2021).	CNDB Occurrence 4 identifies an unknown species of <i>Anniella</i> , identified as California legless lizard on Kern River just above Lake Isabella, but dates from 1959 (CDFW 2021b). Closest recent observation recorded in 2021 near Highway 58, about 40 km SE of Borel Project area (iNaturalist 2021).	Yes	Suitable habitat present.

Name	Federal Status	State Status	BLM/Forest Service Status	Habitat Characteristics	Known Occurrences	Impacts Analyzed	Rationale
Northwestern pond turtle (<i>Emys marmorata</i>)	None	SSC	FSS	Ranges throughout California except for Inyo and Mono Counties. Generally occurs in various water bodies including permanent and ephemeral systems either natural or artificial. Upland habitat that is at least moderately undisturbed is required for nesting and overwintering, in soils that are loose enough for excavation (Thomson et al. 2016).	This species is identified in SCE's Sensitive Species Protection Plan (SCE 2008). One CNDDDB occurrence within the 0.5-mile Borel Project area, below Lake Isabella dam in Hot Spring Valley (CDFW 2021b). Another recorded CNDDDB occurrence located just outside the Borel Project Area, about one mile east of the town of Lake Isabella at 3,200-foot elevation. Occurrences (861 and 874).	Yes	Suitable habitat present in and around Lake Isabella, wet parts of the canal, and other waters.
Blunt-nosed leopard lizard (<i>Gambelia sila</i>)	FE	SE, FP	None	Inhabits open, sparsely vegetated areas of low relief on the San Joaquin Valley floor and in the surrounding foothills. Non-native grassland, valley sink scrub, valley needlegrass grassland, alkali playa, and <i>Atriplex</i> grassland (USFWS 2010a). Uses mammal dens and burrows for cover and shelter. The number of available burrows will determine the size of this lizard's population in an area (Nafis 2021).	BIOS QV: Lake Isabella South (CDFW 2021c)	No	Outside of known range of species, which is only in the San Joaquin Valley (USFWS 2010a) and not identified in iPaC (USFWS 2021b).
Coast horned lizard (<i>Phrynosoma blainvillii</i>)	None	SSC	BLM-S	Ranges in the southern half of California outside of the desert, along the foothills of the Sierra Nevada Mountains to Butte County, and along the Central Coast ranges up to Contra Costa County. Generally occurs in sage scrub, dunes, alluvial scrub, annual grassland, chaparral, oak, riparian, and Joshua tree woodland, coniferous forest, and saltbush scrub. Needs loose, fine soils for burrowing, open areas for basking, and dense foliage for cover. Negatively associated with Argentine ants (<i>Linepithema humi</i>) (Thomson et al. 2016).	This species is identified in SCE's Sensitive Species Protection Plan (SCE 2008).	Yes	Suitable habitat present throughout the Borel Project area.
Birds							
Northern goshawk, (<i>Accipiter gentilis</i>)	None	SSC	BLM-S, FSS	Nests in mature and old-growth coniferous forests at high elevations in the Sierra Nevada, Cascade, North Coast, and Transverse Ranges. Prefers stands with Pacific Ponderosa pine (<i>Pinus ponderosa</i> var. <i>pacifica</i>), Jeffrey pine (<i>Pinus jeffreyi</i>), Lodgepole pine (<i>Pinus contorta</i>), Douglas-fir (<i>Pseudotsuga menziesii</i>), and rarely pinyon-juniper (<i>Pinus monophylla</i> and <i>Juniperus</i> spp.) or quaking aspen (<i>Populus tremuloides</i>). Prefers stands with larger trees, denser canopies, and relatively open understories (Shuford and Gardali 2008).	BIOS QV: TP (CDFW 2021c)	No	Outside of known range and no suitable habitat present.
Kern red-winged blackbird (<i>Agelaius phoeniceus aciculatus</i>)	None	SSC	None	Found in marshy meadows and lagoons which support growths of cattails and sedges." Shuford and Gardali (2008) noted that "alfalfa fields developed through irrigation have increased available habitat, at least for foraging activity." Currently, this blackbird breeds in freshwater cattail (<i>Typha</i> spp.) and tule (<i>Scirpus</i> spp.) marshes, marsh vegetation bordering natural and man-made ponds, marsh and willows (<i>Salix</i> spp.) in the drawn-down area at the east end of Lake Isabella, and riparian forest bordering wetlands, irrigation ditches, and wet pastures. Open desert and pasturelands appear to be important foraging areas for these blackbirds (Shuford and Gardali 2008).	BIOS QV: We (CDFW 2021c)	Yes	Suitable habitat present.
Tricolored blackbird (<i>Agelaius tricolor</i>)	None	ST, SSC	BLM-S	Mostly a year-round resident in California. Common locally throughout Central Valley and in coastal districts from Sonoma County south. Breeds locally in northeastern California. In winter, becomes more widespread along the central coast and San Francisco Bay area, and can be found in portions of the Colorado Desert (Hamilton 2004). Preferred nesting habitat includes cattails (<i>Typha</i> spp.), bulrushes (<i>Schoenoplectus</i> spp.), Himalayan blackberry (<i>Rubus armeniacus</i>), and agricultural silage. Dense vegetation is preferred but heavily lodged cattails not burned in recent years may preclude settlement. Need access to open water. Strips of emergent vegetation along canals are avoided as nest sites unless they are about 30 feet or more wide but in some ponds, especially where associated with Himalayan blackberries and deep water, settlement may be in narrower fetches of cattails. (CDFW 2021a).	CNDDDB occurrence (892) within 0.5-mile northeast of Lower Borel Project area, northeast of the town of Lake Isabella (CDFW 2021b). According to eBird, observed at Lake Isabella in 2017 (eBird 2021).	Yes	No suitable habitat identified during biological information gathering efforts, but discussed in EA.

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Grasshopper sparrow (<i>Ammodramus savannarum</i>)	None	SSC	None	Nests in a variety of grassland habitats throughout much of the Central Valley, Coast Range Mountains, and the Inland Empire region. Prefers short to middle-height, moderately open grasslands with scattered shrubs. Avoids areas with high shrub cover (Shuford and Gardali 2008).	No known observations in the Borel Project area. The closest iNaturalist (2021) occurrence was recorded near southern end of Kern County, in the Bitter Creek National Refuge.	Yes	Suitable habitat present in annual grassland.
Golden eagle (<i>Aquila chrysaetos</i>)	BGEPA	FP	BLM-S	Uncommon resident in hills and mountains throughout California, and an uncommon migrant and winter resident in the Central Valley and Mojave Desert. Prefers rolling foothills and mountain terrain, wide arid plateaus deeply cut by streams and canyons, open mountain slopes, cliffs, and rock outcrops. (CDFW 2021a).	Included in SCE Raptor Protection Program. One eBird observation in 2016 located at the main dam from Engineer's Point, South Fork Recreation Area, and reservoir (eBird 2021).	Yes	Suitable habitat present throughout Borel Project area.
Short-eared owl (<i>Asio flammeus</i>)	None	SSC	None	Found in open, treeless areas with elevated sites for perches, and dense vegetation for roosting and nesting. Associated with perennial grasslands, prairies, dunes, meadows, irrigated lands, and saline and fresh emergent wetlands. Breeds in coastal areas in Del Norte and Humboldt Counties, San Francisco Bay Delta, northeastern Modoc plateau, east Sierras from Lake Tahoe to Inyo County and San Joaquin Valley. Winters in the Central Valley, western Sierra Nevada foothills and along the coastline (CDFW 2021).	Included in SCE Raptor Protection Program. No known observations in Borel Project area.	Yes	Suitable habitat present throughout Borel Project area.
Long-eared owl (<i>Asio otus</i>)	None	SSC	None	Widespread but uncommon and local across California year-round, except in the Central Valley where it is a rarely encountered migrant and winter resident. Nests and roosts in dense stands of live oak (<i>Quercus</i> spp.) in riparian thickets with dense canopies near meadow edges. Also nests in dense stands of conifers at higher elevations (CDFW 2021a).	Included in SCE Raptor Protection Program. Recorded at Lake Isabella in 1982, per eBird (eBird 2021).	Yes	Suitable habitat present
Redhead (<i>Aythya americana</i>)	None	SSC	None	Nests in freshwater emergent wetlands where dense stands of cattails and bulrushes are interspersed with areas of deep, open water. Also observed nesting in somewhat alkaline marshes and potholes (Shuford and Gardali 2008).	Redheads were observed at Lake Isabella in 1993 (eBird 2021).	Yes	Suitable habitat present
Swainson's hawk (<i>Buteo swainsoni</i>)	None	ST	BLM-S	Nests in oak savanna and cottonwood riparian areas adjacent to foraging habitat of grasslands, agricultural fields, and pastures where they often follow farm equipment to gather killed and maimed rodents. Increasingly also nests in sparse stands of gum trees (<i>Eucalyptus</i> spp.) and Australian pines (<i>Casuarina equisetifolia</i>) and often forage along roadsides and grassy highway medians. Breeding resident in the Central Valley, Klamath Basin, Northeastern Plateau, and in juniper-sagebrush flats of Lassen County. Limited breeding reported from Lanfair Valley, Owens Valley, Fish Lake Valley, and Antelope Valley. Winters primarily in Argentina, with most birds absent from California October through February, though a few overwinter in the Sacramento-San Joaquin River Delta. Prolific migrant through southern California in spring and fall, with large mixed-age groups of birds frequently observed kettling high overhead on thermals or foraging together on freshly cut agricultural fields (CDFW 2021a).	Included in SCE Raptor Protection Program. CNDB occurrence 2527 is in Lake Isabella in the Borel Project area (CDFW 2021b).	Yes	Suitable habitat present
Vaux's swift (<i>Chaetura vauxi</i>)	None	SSC	None	Nests in cavities in a variety of trees and less frequently in artificial structures such as smokestacks. Shows an affinity for old-growth coast redwood (<i>Sequoia sempervirens</i>) and Douglas fir (<i>Pseudotsuga menziesii</i>) forests with nest sites in large hollow trees and snags, especially tall, burnt-out stubs (Shuford and Gardali 2008).	One eBird observation at Lake Isabella in 2018 of ten individuals recorded (eBird 2021).	Yes	Possible passthrough
Northern harrier (<i>Circus hudsonius</i>)	None	SSC	None	Nests on the ground in patches of dense, tall vegetation in undisturbed areas. Breed and forage in a variety of open habitats such as marshes, wet meadows, weedy borders of lakes, rivers and streams, grasslands, pastures, croplands, sagebrush flats, and desert sinks (Shuford and Gardali 2008).	Included in SCE Raptor Protection Program. One observation at Lake Isabella in 2018 (eBird 2021).	Yes	Suitable habitat present in annual grassland, around Lake Isabella, and delineated wetlands.
Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>)	FT	SE	FSS, BLM-S	Has declined drastically in California due primarily to loss of habitat. Requires riparian woodland with dense cover; primarily mature cottonwood (<i>Populus</i> spp.) forests with willow (<i>Salix</i> spp.) understory but will also nest in overgrown orchards adjacent to streams and dense thickets alongside marshes. Persists in small numbers along the Sacramento River between Red Bluff and Colusa, the Feather River between Yuba City and the Bear River, Owens Valley, the Kern River Valley, the Colorado River Valley, the Santa Ana River near Prado Basin, and the San Luis Rey River in northern San Diego County (USFWS 2019).	On USFWS IPaC list (USFWS 2021b). One obscured iNaturalist observation recorded in 2014 about 15 km east of Kernville (iNaturalist 2021).	Yes	Suitable habitat identified during biological information gathering efforts.

Name	Federal Status	State Status	BLM/Forest Service Status	Habitat Characteristics	Known Occurrences	Impacts Analyzed	Rationale
Olive-sided flycatcher (<i>Contopus cooperi</i>)	None	SSC	BLM-S	Nests in a wide variety of forest and woodland habitats below 9,000 feet in elevation in the coastal and mountainous portions of California. Occurs only as a migrant elsewhere in the state. Prefers forests and woodlands with adjacent meadows, lakes, or open terrain for foraging. (CDFW 2021a).	No known observations in the Borel Project area. No known observations in Kern County.	No	Outside of known range of the species
White-tailed kite (<i>Elanus leucurus</i>)	None	FP	BLM-S	Fairly common resident of the Central Valley, coast, and Coast Range Mountains. Nests in oak savanna, oak and willow riparian, and other open areas with scattered trees near foraging habitat. Forages in open grasslands, meadows, farmlands, and emergent wetlands. Often seen hover foraging over roadsides or grassy highway medians (CDFW 2021a).	Observed at Lake Isabella in 2012 (eBird 2021).	Yes	Suitable foraging habitat present throughout all of Borel Project area and oak and riparian habitat suitable for nesting.
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	FE	SE	FSS	Uncommon to rare summer resident in the southern Sierra Nevada Range, the Lower Kern River Valley, along the Santa Margarita River, and the upper San Luis Rey River. Prefers dense riparian forests with willow component and scrub habitats associated with arroyos, washes, rivers, lakes, and reservoirs. Has declined drastically as much of its preferred willow habitat has been taken over by invasive tamarisk (<i>Tamarix</i> spp.), though does now sometimes use tamarisk for nesting and foraging in the absence of native vegetation (USFWS 2002).	This species is identified in SCE's Sensitive Species Protection Plan (SCE 2008). Included on USFWS IPaC list (USFWS 2021b). Bird identified as a willow flycatcher recorded on Lake Isabella in 2016 (eBird 2021).	Yes	Suitable habitat identified during biological information gathering efforts.
American peregrine falcon (<i>Falco peregrinus anatum</i>)	None	FP	None	Breeds near wetlands, lakes, rivers, or other waters on cliffs, banks, dunes or mounds, mostly in woodland, forest, and coastal habitats. Nest is a scrape on a depression or ledge in an open site. May use man-made structures (such as bridges, skyscrapers, or electrical towers), large snags, or trees for nesting (CDFW 2021a).	This species is identified in SCE's Sensitive Species Protection Plan (SCE 2008). One eBird observation of one individual at Lake Isabella on January 3, 2021 (eBird 2021).	Yes	No known nests but could forage around Lake Isabella and delineated wetlands.
California condor (<i>Gymnogyps californianus</i>)	FE	SE, FP	None	Formerly ranged across much of North America, but over the course of the 20th Century, disappeared over nearly its entire range. Dwindled to such small numbers that by the 1980s, all remaining birds were removed from the wild to a captive rearing program. In the 1990's, began being re-released, and now the species has re-established in the foothills of the southern Sierra Nevada Range, across the Tehachapi Range and through the Transverse Ranges from Los Angeles County to Santa Barbara County, and up the Coast Range Mountains to Big Sur and Pinnacles National Park. Nests in cavities located on steep rock formations or in the burned out hollows of old-growth coast redwoods (<i>Sequoia sempervirens</i>) or giant sequoias (<i>Sequoiadendron giganteum</i>). Less commonly uses cliff ledges or large old nests of other bird species. Forages in open terrain of foothill grassland and oak savanna habitats, and at coastal sites in central California (USFWS 2013). IPaC identified a non-essential experimental population of California condor near the Borel Project area (USFWS 2022).	Species identified in IPaC (USFWS 2021b). No known observations in Borel Project area or surrounding quads.	Yes	Potential for use of the Borel Project area for foraging and passthrough.
Bald eagle (<i>Haliaeetus leucocephalus</i>)	BGEPA	SE, FP	BLMS, FSS	Permanent resident in the highest Coast Range mountains, across the Cascade Range, and down the Sierra Nevada to the eastern Transverse Ranges of San Bernardino and Riverside Counties. Uncommon migrant and winter visitor to lowland rivers, lakes, and reservoirs. Nests in large, old-growth, or dominant live trees with open branchwork, especially ponderosa pine (<i>Pinus ponderosa</i>). Requires large bodies of water or rivers with abundant fish, and adjacent snags (CDFW 2021a).	This species is identified in SCE's Sensitive Species Protection Plan (SCE 2008). eBird has a siting at Lake Isabella from 2021 (eBird 2021).	Yes	Suitable habitat present around Lake Isabella.
Yellow-breasted chat (<i>Icteria virens</i>)	None	SSC	None	Nests in early-successional riparian habitats with a well-developed shrub layer and an open canopy. Restricted to narrow borders of streams, creeks, sloughs, and rivers. Often nest in dense thickets of blackberry (<i>Rubus</i> spp.) and willow (Shuford and Gardali 2008).	The closest iNaturalist recorded observation was recorded in 2017 in California City, about 70 miles SE of the Borel Project (iNaturalist 2021).	No	Outside of known range
Loggerhead shrike (<i>Lanius ludovicianus</i>)	None	SSC	None	Shrublands and open woodlands with a fair amount of grass cover and areas of bare ground. Requires tall shrubs or trees, fences, or power lines for hunting perches and territorial advertisement. Also requires open areas of short grasses, forbs, or bare ground for hunting, large shrubs or trees for nest placement, and thorny vegetation or barbed wire fences for impaling prey. Ranges across most of the state but absent from the highest mountains and the northwest forests and coast (Shuford and Gardali 2008).	One eBird observation at Lake Isabella in 2020 of one individual recorded (eBird 2021).	Yes	Suitable habitat present

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Summer tanager (<i>Piranga rubra</i>)	None	SSC	None	Breeds primarily in mature riparian woodland with extensive Fremont cottonwood (<i>Populus fremontii</i>) canopy. In California, present from mid-April into October along the Colorado River and at scattered riparian sites and desert oases from Inyo County south. Rare elsewhere in the state and at other seasons (Shuford and Gardali 2008).	One individual recorded as an eBird observation at Lake Isabella in 2020 (eBird 2021).	Yes	Suitable habitat present
Purple martin (<i>Progne subis</i>)	None	SSC	None	Present in California from mid-March through late September. Requires concentrations of nesting cavities, relatively open air space above accessible nest sites, and relatively abundant aerial insect prey. In the coastal mountains, Cascade Range, and Sierra Nevada foothills, inhabits open forests, woodlands, and riparian areas. Extirpated as a breeder from most of the Central Valley except the Sacramento area where it has taken to nesting in hollow-box bridges. In southern California, now only a rare and local breeder on the coast and in interior mountain ranges, with few breeding localities. Absent from higher desert regions except as a rare migrant (Shuford and Gardali 2008).	No known recent observations recorded in the Borel Project area.	Yes	Suitable habitat present
Yellow warbler (<i>Setophaga petechia</i>)	None	SSC	None	Usually found in riparian deciduous habitats in summer: cottonwoods, willows, alders (<i>Alnus</i> spp.), and other small trees and shrubs typical of low, open-canopy riparian woodland. Also breeds in montane shrubbery in open coniferous forests (CDFW 2021a).	Observed during biological information gathering efforts. One eBird observation of three individual yellow warblers at Lake Isabella in 2020 (eBird 2021).	Yes	Observed during biological information gathering efforts.
California spotted owl (<i>Strix occidentalis occidentalis</i>)	None	SSC	BLM-S, FSS	Older forests in areas of high canopy cover, with a multi-layered canopy, old decadent trees, a high number of large trees, and coarse downed woody debris. In California, ranges throughout the west slopes of the Sierra Nevada Mountains, and down the Coast Range Mountains from Carmel south through the Transverse Ranges nearly to Baja California (Shuford and Gardali 2008).	BIOS QV: Woolstaf Crk, Lake Isabella South, Claraville, Breckenridge Mtn. (CDFW 2021c).	No	No old growth forest in the project area.
Bendire's thrasher (<i>Toxostoma bendirei</i>)	None	SSC	None	Breeds in Mojave scrub habitats. Associated with yucca (<i>Yucca</i> spp.) and prickly pear (<i>Opuntia</i> spp.), as well as firmly packed soil. Generally avoids areas with steep slopes and rocky terrain (Shuford and Gardali 2008).	BIOS QuickView: Claraville	No	Outside of known range
Least Bell's vireo (<i>Vireo bellii pusillus</i>)	FE	SE	None	Once occupied much of the Central Valley, but has disappeared from most of its former range, and is now restricted to southern California from southern Inyo and Monterey Counties south through the South Coast and Inland Empire regions. Obligate riparian breeder, favoring cottonwood, willow, and oak (<i>Quercus</i> spp.) woodlands, and mule fat (<i>Baccharis salicifolia</i>) scrub along watercourses (USFWS 2006).	One incidental eBird observation of one individual least Bell's vireo at Lake Isabella in 2016 (eBird 2021).	Yes	Suitable habitat identified during biological information gathering efforts.
Yellow-headed blackbird (<i>Xanthocephalus xanthocephalus</i>)	None	SSC	None	Nests in fresh marshes with tall, emergent vegetation such as bulrushes and cattails adjacent to deep water (Shuford and Gardali 2008).	Three yellow-headed blackbird individuals were recorded for one eBird observation at Lake Isabella in 2004 (eBird 2021).	Yes	Suitable habitat present in Borel Project area.
Mammals							
Pallid bat (<i>Antrozous pallidus</i>)	None	SSC	BLM-S, FSS	Ranges across nearly all of California except for high elevation portions of the Sierra Nevada Mountains and Del Norte, western Siskiyou, Humboldt, and northern Mendocino Counties. Generally found in a wide variety of habitats but with some preference for drier areas. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings (CDFW 2021a).	This species is identified in SCE's Sensitive Species Protection Plan (SCE 2008). CNDB occurrence (174) in the vicinity of lower Borel Project area, 0.5-mile northeast of the town of Lake Isabella (CDFW 2021b).	Yes	Suitable habitat present at all of the identified Borel Project structures. Potential for roosts in snags, caves, crevices, as well.
Sierra Nevada beaver (<i>Aplodontia rufa californica</i>)	None	SSC	None	Ranges across the Sierra Nevada Mountains from Shasta and Lassen Counties south to Tulare County. Generally found in dense riparian forests and open shrubscapes around most forest types. Specifically found in forests with open to moderate canopy cover and a dense understory near water. Requires deep friable soils and a cool moist microclimate (CDFW 2021a).	BIOS QV: LIN (CDFW 2021c)	No	Outside of known range. Not known in Kern County.
Ringtail (<i>Bassaricus astutus</i>)	None	FP	None	Occurs in various riparian habitats, and in brush stands of most forest and shrub habitats, at low to middle elevations. Suitable habitat consists of a mixture of forest and shrubland in close association with rocky areas or riparian habitats. Usually not found more than 0.6 mile from permanent water. Hollow trees, logs, snags, cavities in talus slopes and other rocky areas, and other recesses are used for cover. Nests in rock recesses, hollow trees, logs, snags, abandoned burrows, or woodrat nests (CDFW 2021a).	No known observations in the Borel Project area.	Yes	Suitable habitat present in all of project area except developed and annual grassland.

Name	Federal Status	State Status	BLM/Forest Service Status	Habitat Characteristics	Known Occurrences	Impacts Analyzed	Rationale
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	None	SSC	BLM-S, FSS	Ranges throughout California except for high elevation portions of the Sierra Nevada Mountains. Generally prefers mesic habitats but known to occur in all non-alpine habitats of California. Roosting occurs in caves, tunnels, mines, buildings, or other structures and this species may use different roosting sites for day and night (CDFW 2021a).	This species is identified in SCE's Sensitive Species Protection Plan (SCE 2008). Five CNDDDB recorded occurrences (41, 61, 78, 326) of this species are within the Borel Project area with the two most recent noted in the Dan Kelly and Patty mines in Lower Borel (CDFW 2021b).	Yes	Borel Project structures as surveyed provide suitable habitat.
Tipton kangaroo rat (<i>Dipodomys nitratoides nitratoides</i>)	FE	SE	None	Historically distributed in the southern San Joaquin Valley, from southern Fresno County south to Bakersfield. Current distribution is confined to the eastern portion of this range. Habitat needs are similar to Fresno kangaroo rat in that they prefer sands and saline sandy soils in chenopod scrub and grassland communities (USFWS 2010).	Species identified in IPaC (USFWS 2021b). No known observations in Borel Project area or surrounding quads.	No	Outside of known range
Spotted bat (<i>Euderma maculatum</i>)	None	SSC	BLM-S	Ranges across the eastern half of California from the low foothills and over the Cascade and Sierra Nevada crests to Nevada, as well as all of Southern California except for the lowlands of Orange and Los Angeles Counties. Generally occurs in desert, mixed coniferous forests, and grassland habitats. Prefers to roost in rock crevices on cliffs but will sometimes use caves and buildings (CDFW 2021a).	No known observations in the Borel Project area. No known observations in Kern County.	Yes	Borel Project structures as surveyed provide suitable habitat.
Western mastiff bat (<i>Eumops perotis californicus</i>)	None	SSC	BLM-S	Ranges throughout all of Southern California, the central coast, and the Sierra Nevada Mountains. Generally occurs in open, arid, or semi-arid habitats. Roosts in rock crevices and buildings. (CDFW 2021a).	No known observations in the Borel Project area. No known observations in Kern County.	Yes	Borel Project structures provide suitable habitat.
California wolverine (<i>Gulo gulo</i>)	None	ST, FP	None	A scarce resident of the North Coast mountains and Sierra Nevada. Mixed coniferous woodlands, especially those with red fir (<i>Abies magnifica</i>) and lodgepole pine (<i>Pinus contorta</i>). Probably associated with subalpine conifer, alpine dwarf-shrub, wet meadow, and montane riparian habitats between 4,300 and 7,300 feet in elevation (Johnson et al. 1990).	BIOS QV: TP (CDFW 2021c).	No	Elevations in the southern Sierra Nevada mostly are from 6,400–10,800 feet. Well above the elevation range of the Borel Project.
Western red bat (<i>Lasiurus blossevillii</i>)	None	SSC	None	Ranges across the Central Valley, as well as the coast and Coast Range mountains from Mendocino County south, and east across the Los Angeles area into the Inland Empire region. Occurs in most habitats except desert and alpine areas. Roosts in trees, sometimes shrubs, and typically at the margins of habitats (CDFW 2021a).	No known observations in the Borel Project area. No known observations in Kern County.	Yes	Suitable habitat present throughout Borel Project area. Does not use structures.
Yuma myotis (<i>Myotis yumanensis</i>)	None	None	BLM-S	This species is common and widespread in California. It is common in the Mojave and Colorado Desert regions, except for the mountain ranges bordering the Colorado River Valley. Found in a wide variety of habitats ranging from sea level to 3,300 meters (11,000 feet) but it is uncommon to rare above 2,650 meters (800 feet). Optimal habitats are open forests and woodland with sources of water which to feed (CDFW 2021a).	In Borel Project area, nursery colony utilizing Borel Powerhouse discovered during 2001 relicensing surveys. CNDDDB occurrence in Keyesville observed emerging from underneath freeway bridge (CDFW 2021b).	Yes	Borel Powerhouse and other Borel Project structures provide suitable habitat.
San Diego desert woodrat (<i>Neotoma lepida intermedia</i>)	None	SSC	None	This species prefers Joshua tree (<i>Yucca brevifolia</i>), pinyon-juniper, mixed and chamise (<i>Adenostoma fasciculatum</i>) or red shanks (<i>Adenostoma sparsifolium</i>) chaparral, sagebrush (<i>Artemisia</i> spp.), and most desert habitats, but is also found in a variety of other habitats. Moderate to dense canopies are preferred. Particularly abundant in rock outcrops and rocky cliffs and slopes, especially those with Joshua trees. Elevational range from sea level to 8,500 feet (CDFW 2021a).	No known recent observations in the Borel Project area. The closest occurrence reported in 2008 about 20 kilometers northeast of the Borel Project near Highway 178 (iNaturalist 2020).	Yes	Suitable habitat present
Southern grasshopper mouse (<i>Onychomys torridus ramona</i>)	None	SSC	None	Historically, inhabited mesas and valleys along the Pacific slope of the Peninsular and Transverse Ranges and extreme northwestern Baja California. Currently ranges southward from Los Angeles County to the Mexican border, generally west of the desert. Inhabits a variety of low, open and semi-open flat, sandy, valley floor scrub habitats including coastal sage scrub, mixed chaparral, low sagebrush, riparian scrub, and annual grassland with scattered shrubs (Bolster 1998).	No known observations for the Borel Project area.	Yes	Suitable habitat present
Fisher-Southern Sierra Nevada ESU (<i>Pekania pennanti pop. 2</i>)	FE	ST, SSC	FSS, BLM-S	Large areas of mature, dense forest stands with snags and greater than 50% canopy closure. Uncommon permanent resident of the Sierra Nevada, Cascades, and Klamath Mountains; also found in a few areas in the North Coast Ranges (USFWS 2014).	BIOS QV: Lake Isabella South, Claraville (CDFW 2021c).	No	No suitable habitat in the Borel Project area

Name	Federal Status	State Status	BLM/Forest Service Status	Habitat Characteristics	Known Occurrences	Impacts Analyzed	Rationale
San Joaquin pocket mouse (<i>Perognathus inornatus inornatus</i>)	None	None	BLM-S	Occurs in dry, open grasslands or scrub areas on fine-textured soils between 1,100 and 2,000 feet in the Central and Salinas Valleys. Digs burrows for cover (CDFW 2021a).	Borel Project elevation approximately 2,500–2,700 feet; however, one CNDDDB occurrence (museum specimen collected in 1911) located at Kern River at Bodfish (CDFW 2021b).	No	This species' current elevation range does not overlap the Borel Project elevation is at approximately 2,500–2,700 feet.
Salinas pocket mouse (<i>Perognathus inornatus psammophilus</i>)	None	SSC	None	Ranges from Salinas Valley near Soledad, southward to at least Hog Canyon in Monterey County. Ephedra scrub near stream courses (Bolster 1998). Habitat includes annual grassland desert scrub (e.g., <i>Atriplex</i> , <i>Ephedra</i> and <i>Haplopappus</i>) and oak savannah communities on sandy soils and other friable soils (Bolster 1988).	Distributed from Sac Valley to Kern County and Sierra Nevada foothills below 2,000 feet (Bolster 1998).	No	This species' range is too high. Borel Project elevation is at approximately 2,500–2,700 feet.
American badger (<i>Taxidea taxus</i>)	None	SSC	None	Ranges across nearly all of California except northernmost Humboldt and Del Norte Counties. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils (CDFW 2021a).	The closest occurrence was reported in 2020 outside of the Borel Project area, about 5 kilometers southeast of Bodfish (iNaturalist 2020).	Yes	Suitable habitat present throughout Borel Project
San Joaquin kit fox (<i>Vulpes macrotis mutica</i>)	FE	ST	None	Historically ranged in alkali scrub/shrub and arid grasslands throughout the level terrain of the San Joaquin Valley floor from southern Kern County north to Tracy in San Joaquin County, and up into more gradual slopes of the surrounding foothills and adjoining valleys of the interior Coast Range. Occurs in desert-like habitats characterized by sparse or absent shrub cover, sparse ground cover, and short vegetative structure. Prefers areas with open, level, sandy ground (USFWS 2010b).	BIOS QV: Breckenridge Mtn. (CDFW 2021c). On USFWS iPaC list (USFWS 2021b).	No	Outside of known range of species

Key:

Federal:

BGEPA = Bald and Golden Eagle Protection Act

FC = Federal Candidate

FE = Federally Endangered

FPE = Federal Proposed Endangered

FPT = Federal Proposed Threatened

FT = Federally Threatened

BLM-S = Bureau of Land Management Sensitive

FSS = Forest Service Sensitive

State:

FP = Fully Protected

SCE = State Candidate Endangered

SE = State Endangered

SSC = State Species of Special Concern

ST = State Threatened

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