BIOLOGICAL STUDY
BARON RANCH TRAIL REALIGNMENT
SANTA BARBARA COUNTY

Prepared for:

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November 2023

Project No. 2302-3581

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1.0 PROJECT BACKGROUND

1.1 STUDY PURPOSE

The purpose of this Biological Study is to identify impacts to biological resources in support of an initial study to be prepared in compliance with the California Environmental Quality Act.

1.2 PROJECT LOCATION

The trail realignment site is located within the 1,083-acre County-owned Baron Ranch, located to the east of the Tajiguas Landfill and includes APN 081-150-032, APN 081-100-005, and APN 081-090-009. Baron Ranch is located approximately 25 miles west of the City of Santa Barbara (see Figure A).

1.3 BARON RANCH HISTORY

The Baron Ranch property was purchased by the Resource Recovery and Waste Management Division of the County of Santa Barbara Public Works Department in 1991 to serve as a buffer between the Tajiguas Landfill and other private property to the east, and at the time the Board of Supervisors identified as an added benefit the potential to allow public access.

The initial public trail at Baron Ranch opened in December 2010, with the trailhead located off U.S. Highway 101 on Calle Real, about 2.6 miles west of Refugio State Beach entrance road. The initial route followed ranch roads inland along Arroyo Quemado and into the lower slopes of the Santa Ynez Mountains. In 2021, after adding a pedestrian bridge, the trail route was realigned from the east side of Arroyo Quemado to the west side. The new trail alignment included a trail extension through the Los Padres National Forest to Camino Cielo at the crest of the Santa Ynez Mountains. The route changes resulted in the six-mile-long route to the top of the mountains being named Arroyo Quemado Trail, and the trail segment that forked off the main trail was renamed the Loop Trail. These trails are currently open for public use seven days a week, from 8:00 a.m. until sunset and is a shared use trail typically used by hikers, bikers and equestrians.

1.4 PROJECT SUMMARY

The Santa Barbara County Trails Council plans to realign a portion of the upper Baron Ranch Trail (loop) to provide a longer, wider and less steep trail suitable for small offroad vehicles to be used for trail maintenance. The proposed trail realignment would be located outside the conservation area managed under the Habitat Conservation Plan for the Tajiguas Landfill and ReSource Center.

1.5 PURPOSE AND NEED

The purpose of the proposed ranch road/trail (aka Loop Trail) realignment is to reduce erosion and create a sustainable ranch road/trail. Storm events following the Alisal Fire have caused the very steep ranch roads to become water runoff channels, funneling large quantities of sediment into Arroyo Quemado. This project would reduce the gradient of the affected trail segment which would reduce erosion-related sediment deposition into Arroyo Quemado and may benefit aquatic wildlife including the threatened California red-legged frog (CRLF).

2.0 ENVIRONMENTAL SETTING

The project area (Baron Ranch) was historically used for agriculture (avocado, cherimoya orchards, and grazing), a quarry, and supported a single-family caretaker dwelling (destroyed in the Alisal Fire). Baron Ranch is currently used for native habitat restoration and habitat conservation (restricted covenant area and conservation easement area) associated with Landfill mitigation requirements and resource agency permits, as a receiver site for sensitive species translocated from the operational areas of the Landfill, and public recreation (Baron Ranch Trail).

Baron Ranch supports a near perennial drainage known as Arroyo Quemado which supports riparian woodland dominated by coast live oak (*Quercus agrifolia*), western sycamore (*Platanus racemosa*), California bay-laurel (*Umbellularia californica*), and arroyo willow (*Salix lasiolepis*). Arroyo Quemado and much of Baron Ranch has been designated as critical habitat (STB-6, Arroyo Quemado to Refugio Creek) for CRLF by the U.S. Fish and Wildlife Service (USFWS).

The Arroyo Quemado watershed is 1,915 acres in size, with over 50 percent of it contained within the Ranch parcels, with its headwaters being the ridgeline of the Santa Ynez Mountains only 3.5 miles from the shoreline. It is characterized by extremely steep and rugged upper watershed slopes that form the upper reach of Arroyo Quemado. Arroyo Quemado is 2.62 miles in length and has several small unnamed tributaries that drain the small basins formed by the uplifted geology. The creek's year-round flow in portions of the channel is fed by naturally occurring artesian springs, artesian wells drilled to support agricultural operations, and exfiltration from the soil strata (KTUA, 2020).

Riparian and upland restoration activities (approximately 50 acres in total) were conducted at Baron Ranch as part of regulatory permits issued for the Tajiguas Landfill Reconfiguration Project to improve habitat quality and connectivity. In addition, approximately 32 acres of the riparian corridor and adjacent upland habitats are protected in a restrictive covenant and 109.75 acres are protected under a Habitat Conservation Plan for the Tajiguas Landfill and ReSource Center.

On October 11th, 2021, the Alisal Fire ignited and burned approximately 17,846 acres, including approximately 98 percent of the Arroyo Quemado watershed with over 50 percent of the watershed exhibiting a moderate to high burn severity, before the fire was contained on November 20th, 2021 (Los Padres National Forest 2021). This fire exhibited extreme fire behavior, burning the majority of the understory riparian vegetation in several coastal watersheds, a phenomenon not commonly observed in these watersheds. Following the Alisal Fire, the region experienced numerous significant precipitation events in December 2021 and March 2022. These precipitation events resulted in debris flows within Arroyo Quemado that increased sedimentation deposition, significantly altering the stream morphological features, hydrology, and aquatic habitats that support aquatic and semiaquatic species within Arroyo Quemado.

3.0 PROJECT DESCRIPTION

The loop portion of the Baron Ranch is located about 2.2 trail miles from the trailhead on Calle Real (see Figure A). The proposed realignment would begin about 0.4 trail miles from the lower end of the loop and located on the eastern portion of the trail loop. A roughly 0.3 mile-long segment of the eastern loop would be realigned to provide a 0.7 mile-long, less steep trail with an average gradient of about 10 percent (see Figure B). The trail would be six feet wide and unsurfaced, constructed using hand tools (chainsaws, loppers, shovels, rakes, etc.) and a mini-excavator. Cut vegetation would be used to fill in erosional gullies. Portions of the existing trail eliminated by the realignment (about 0.4 miles) would be decommissioned, including hand placement of native rock in strategic locations within erosional gullies to trap sediment and/or reduce erosion from future storm events. Work would be conducted to minimize erosion by following U.S. Forest Service best practices for sustainable trail construction. It is anticipated trail construction would require approximately eight work days to complete.

Trail maintenance would be limited to periodic hand trimming of shrubs to provide a clearance width of six feet. For the purposes of discussion, the “project site” refers to a 50-foot-wide corridor centered on the 0.7 mile-long trail realignment.

4.0 BIOLOGICAL RESOURCES OF THE PROJECT SITE

4.1 VEGETATION

The proposed trail alignment was entirely burned in the 1955 Refugio Fire and the 2021 Alisal Fire. The Baron Ranch Master Plan (KTUA, 2020) indicates the proposed trail alignment supported *Ceanothus megacarpus* chaparral prior to the Alisal Fire. Review of pre-Alisal Fire aerial photographs indicates the proposed trail alignment supported mostly low density chaparral and grassy areas. Only a small number of burned shrub crowns were observed, indicating a very hot fire and relatively low shrub density.

Virtually the entire proposed trail alignment is located on former ranch roads or areas graded to provide access for historic fire response. Vegetation along the trail alignment is typical of initial fire recovery, dominated by deer weed (*Acmispon glaber*) and chaparral morning glory (*Calystegia macrostegia*). Seedlings of chaparral shrub species stimulated by the Alisal Fire were common and dominated by green-bark ceanothus (*Ceanothus spinosus*), and spiny redberry (*Rhamnus crocea*). Approximately 11 coast live oak trees occur adjacent to the proposed trail alignment.

4.2 PROJECT SITE FLORA

A total of 44 vascular plant species were observed within the project site during the September 11, 2023 field survey (see Attachment A), including 28 native species (64 percent). Of the 16 non-native species identified, 13 are considered invasive by the California Invasive Plant Council, including one species rated as highly invasive (red brome), nine species rated as moderately invasive, and three species rated as limited invasiveness.

4.3 WILDLIFE

The wildlife habitat value of the project area (Baron Ranch) is considered high because it is surrounded by open space and includes riparian wildlife habitat. Arroyo Quemado provides perennial surface water and riparian habitat in an open space area, which is becoming rare in southern California. Factors that reduce the habitat value of the project area include the adjacent Tajiguas Landfill and the associated noise, dust, human activity and solid waste that may attract predators and scavenging birds. Periodic restoration and maintenance activities at Baron Ranch may occasionally disturb wildlife. Recreational use of the Baron Ranch Trail is relatively light and periodic, such that any adverse effects to wildlife habitat are minor.

Fish have not been observed in Arroyo Quemado or its tributaries, mostly likely due to a downstream barrier formed by the U.S. Highway 101 culverts. Amphibians known to occur at Baron Ranch include CRLF (*Rana draytonii*), Baja California treefrog (*Pseudacris hypochondriaca*), California treefrog (*Pseudacris cadaverina*), California toad (*Anaxyrus boreas halophilus*), black-bellied slender salamander (*Batrachoseps nigriventris*) and coast range newt (*Taricha torosa*) (Padre, 2022).

Reptiles known to occur at Baron Ranch include southwestern pond turtle (*Actinemys pallida*), San Diego gopher snake (*Pituophis catenifer annectens*), California striped racer (*Masticophis lateralis lateralis*) and southern Pacific rattlesnake (*Crotalus oreganius helleri*). Western fence lizard (*Sceloporus occidentalus*) and side-blotched lizard (*Uta stansburiana*) were observed during the field survey.

A total of 56 bird species have been reported from Baron Ranch (Padre, 2022 and McMahon, 2022) and are listed with scientific names in Appendix B. Many of these species are expected to breed at Baron Ranch. Eight bird species were observed at or near the project site during the field survey including red-shouldered hawk, California quail, acorn woodpecker, western scrub jay, chestnut-backed chickadee, house wren, spotted towhee and California towhee. Most of these species are expected to breed at Baron Ranch.

A total of 19 mammal species have been observed at Baron Ranch during numerous surveys and site visits conducted as part of managing the CRLF population. These species are listed with scientific names in Appendix B. Notable mammals observed include bobcat, black bear, mountain lion, ringtail, gray fox and long-tailed weasel. Coyote and pocket gopher were observed during the field survey.

4.4 WILDLIFE CORRIDORS

Wildlife migration corridors are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Migration corridors may be local such as between foraging and nesting or denning areas, or they may be regional in nature. Migration corridors are not unidirectional access routes; however, reference is usually made to source and receiver areas in discussions of wildlife movement networks. "Habitat linkages" are migration corridors that contain contiguous strips of native vegetation between source and receiver areas. Habitat linkages provide cover and forage sufficient for temporary inhabitation by a variety of ground-dwelling animal species. Wildlife migration corridors are essential to the regional ecology of an area as they provide avenues of genetic exchange and allow animals to access alternative territories as fluctuating dispersal pressures dictate.

The project site is located within Baron Ranch, and within the boundaries of the Los Padres National Forest. However, the Tajiguas Landfill is located immediately west of Baron Ranch, which may function as a partial barrier to local wildlife movement. Due to extensive areas of open space and undeveloped areas surrounding Baron Ranch, wildlife movement is not anticipated to be constrained, except most species are expected to avoid the Landfill site. However, wildlife are anticipated to avoid dense chaparral vegetation by utilizing trails and access roads. Regional wildlife movement is likely to occur along major ridgelines (such as Camino Cielo) and riparian corridors such as Arroyo Quemado.

4.5 SPECIAL-STATUS PLANT SPECIES

Table 1 lists special-status plant species reported within five miles of the project site based on review of the California Natural Diversity Data Base and California Native Plant Society on-line inventory and the results of field surveys conducted for this Study. Excluding protected coast live oak trees, none were observed at the project site.

Table 1. Special-Status Plant Species Reported within Five Miles of the Project Site

Scientific Name	Common Name	Status	Status at the Project Site
Arctostaphylos refugioensis	Refugio manzanita	List 1B, SBBG	Habitat present, but species not found during the survey of the project site, considered absent
Aristida adscensionis	Triple-awned grass	SBBG	Reported in 1980 from Alegria Canyon (CCH, 2023), species not found during the survey of the project site, considered absent
Astragalus didymocarpus var. *milesianus*	Mile's milk-vetch	List 1B, SBBG	Reported from the Gaviota area in 1902 (CNDDB, 2023), species not found during the survey of the project site, considered absent
Atriplex serenana var. *davidsonii*	Davidson's saltscale	List 1B, SBBG	Reported from the Gaviota area in 2009 (CNDDB, 2023), species not found during the survey of the project site, considered absent
Baccharis plummerae ssp. *plummerae*	Plummer's baccharis	List 4, SBBG	Planted at Baron Ranch as mitigation for Landfill reconfiguration (ERA, 2008; Padre Associates, 2009), species not found during the survey of the project site, considered absent

Scientific Name	Common Name	Status	Status at the Project Site
Calochortus catalinae	Catalina mariposa lily	List 4	Bulbs and seed were collected from the Landfill property and planted at Baron Ranch (Padre Associates, 2009), species not found during the late summer survey of the project site
Cheilanthes cooperae	Cooper's lip fern	SBBG	Reported in 1959 from Tajiguas Canyon (CCH, 2023), species not found during the survey of the project site, considered absent
Cornus sericea ssp. *occidentalis*	Creek dogwood	SBBG	Reported in 1946 from Arroyo del Bulito west of Gaviota (CCH, 2023), species not found during the survey of the project site, considered absent
Deinandra increscens ssp. *villosa*	Gaviota tarplant	SE, FE, List 1B, SBBG	Nearest occurrence approximately four miles to the southwest (CCH, 2023), species not found during the survey of the project site, considered absent
Erysimum suffructescens	Suffrutescent wallflower	List 4	Nearest occurrence approximately ten miles to the west (CCH, 2023), species not found during the survey of the project site, considered absent
Galium cliftonsmithii	Santa Barbara bedstraw	List 4	Nearest occurrence approximately three miles to the northeast (CCH, 2023), species not found during the survey of the project site, considered absent
Horkelia cuneata ssp. *puberula*	Mesa horkelia	List 1B, SBBG	Reported from the Gaviota area (CNDDB, 2023), species not found during the survey of the project site, considered absent
Lilium humboldtii ssp. *ocellatum*	Ocellated Humboldt lily	List 4, SBBG	Known from coastal canyons in the region, species not found during the survey of the project site, considered absent
Lonicera subspicata subspicata	Santa Barbara honeysuckle	List 1B, SBBG	Planted at Baron Ranch as mitigation for Landfill reconfiguration (ERA, 2008; Padre Associates, 2009), species not found during the survey of the project site, considered absent
Malacothrix saxatilis var. *saxatilis*	Cliff aster	List 4	Nearest occurrence approximately two miles to the southwest (CCH, 2023), subspecies not found during the survey of the project site, considered absent
Monardella hypoleuca ssp. hypoleuca	White-veined monardella	List 1B	Nearest occurrence approximately three miles to the northeast (CCH, 2023), species not found during the late summer survey of the project site
Quercus agrifolia	Coast live oak	LC	Eleven protected trees occur along the proposed trail alignment
Quercus dumosa	Nuttall's scrub oak	List 1B, SBBG	Known from the region, species not found during surveys of the component sites, considered absent
Sanicula hoffmannii	Hoffmann's sanicle	List 4, SBBG	Reported from near the Santa Barbara Botanic Garden, species not found during the survey of the project site, considered absent
Scrophularia atrata	Black-flowered figwort	List 1B	Reported from the Gaviota area (CCH, 2023) species not found during the survey of the project site, considered absent
Pelazoneuron puberulum var. *sonorensis*	Sonoran maiden fern	List 2, SBBG	Reported from Arroyo Hondo, 1.0 miles to the west (CNDDB, 2023), species not found during the survey of the project site, considered absent

Status Key
FE: Federally-listed as Endangered
LC: Local concern (Santa Barbara County)
List 1B: California Native Plant Society (CNPS), plants Rare, Threatened or Endangered in California and elsewhere
List 2: CNPS, plants Rare, Threatened or Endangered in California, but more common elsewhere
List 4: CNPS, plants of limited distribution, a watch list
SBBG: Rare plant of Santa Barbara County (Santa Barbara Botanic Garden)
SE: California-listed as Endangered

4.6 SPECIAL-STATUS WILDLIFE SPECIES

Table 2 lists special-status wildlife species reported within five miles of the project site. The potential for these species to occur in the vicinity of proposed activities was determined by field work conducted at Baron Ranch (Padre, 2022 and McMahon, 2022), project-specific field surveys, habitat characterization and review of sight records from other environmental documents.

Table 2. Special-Status Wildlife Species Reported within Five Miles of the Project Site

Scientific Name	Status	Status at Baron Ranch and Project Site
Invertebrates		
Danaus plexippus Monarch butterfly	FC (roost sites)	Nearest known aggregation site is located approximately 2.2 miles from the project site, no suitable roosting habitat, considered absent from the project site
Bombus crotchi Crotch's bumblebee	SC	Five observed at the Tajiguas Landfill on June 16, 2023; none observed at Baron Ranch during a focused bumblebee survey conducted on July 11, 2023, no suitable floral resources, considered absent from the project site
Fish		
Oncorhynchus mykiss irideus Southern California steelhead DPS	FE/CSC/SC	Reported from Arroyo Hondo 2.0 miles to the southwest, the Arroyo Quemado/U.S. 101 culvert is considered an impassable barrier (Stoecker, et al., 2002), considered absent from the project site
Eucyclogobius newberryi Tidewater goby	FE	Reported from mouth of Arroyo Quemado (CNDDB, 2023), the Arroyo Quemado/U.S. 101 culvert is considered an impassable fish barrier, considered absent from the project site
Amphibians and Reptiles		
Rana draytonii California red-legged frog	FT/CSC	Observed in Arroyo Quemado about 0.4 miles to the south of the project site in 2022 (Padre, 2022)
Taricha torosa torosa Coast Range newt	CSC	Observed in Arroyo Quemado in 2022 (Padre Associates, 2022), suitable habitat present, considered present in Arroyo Quemado south of the project site
Actinemys pallida Southwestern pond turtle	CSC	Observed in Arroyo Quemado about 0.9 miles to the south of the project site in 2022 (Padre, 2022)
Thamnophis hammondii Two-striped garter snake	CSC	Found in Pila Creek near the Tajiguas Landfill in 2008, may occur, but not reported from Baron Ranch. Potentially present in Arroyo Quemado about 0.3 miles south of the project site
Birds		
Icterus bullockii Bullock's oriole	BCC	Observed along Arroyo Quemado in 2022 south of the project site (McMahon, 2022), suitable woodland habitat for this transient species occurs in the adjacent Arroyo Quemado, considered absent from the project site
Toxostoma redivivum California thrasher	BCC	Observed along Arroyo Quemado in 2022 south of the project site (McMahon, 2022), no suitable chaparral habitat present, considered absent from the project site
Baeolophus inornatus Oak titmouse	BCC	Observed along Arroyo Quemado in 2022 south of the project site (McMahon, 2022), suitable woodland habitat occurs in the adjacent Arroyo Quemado, considered absent from the project site

Scientific Name	Status	Status at Baron Ranch and Project Site
Dryobates nuttallii Nuttall's woodpecker	BCC	Observed along Arroyo Quemado in 2022 south of the project site (McMahon, 2022), suitable woodland habitat occurs in the adjacent Arroyo Quemado, considered absent from the project site
Accipiter cooperii Cooper's hawk	WL (nesting)	Observed along Arroyo Quemado in 2022 south of the project site (McMahon, 2022), suitable woodland habitat occurs in the adjacent Arroyo Quemado, considered absent from the project site
Elanus leucurus White-tailed kite	CFP	Observed during biological monitoring at the Tajiguas Landfill (2016-2020), no suitable habitat, considered absent from the project site
Falco peregrinus anatum American peregrine falcon	CFP	Observed along Arroyo Quemado in 2022 south of the project site (McMahon, 2022), no suitable habitat, considered absent from the project site
Lanius ludovicianus Loggerhead shrike	CSC (nesting)	Observed during biological monitoring at the Tajiguas Landfill (2016-2020), no suitable habitat, considered absent from the project site
Selasphorus sasin Allen's hummingbird	BCC	Observed at the Tajiguas Landfill on May 18, 2023, suitable woodland habitat occurs in the adjacent Arroyo Quemado, considered absent from the project site
Setophaga petechia brewsteri Yellow warbler	CSC (nesting)	Observed along Arroyo Quemado in 2022 south of the project site (McMahon, 2022), suitable riparian woodland habitat occurs in the adjacent Arroyo Quemado, considered absent from the project site
Mammals		
Bassariscus astutus Ringtail	CFP	A few tracks observed at Baron Ranch during CRLF surveys conducted since 2010, may occur along Arroyo Quemado, unlikely to occur at the project site
Neotoma lepida intermedia San Diego desert woodrat	CSC	Reported from Union Pacific Railroad right-of-way two miles to the southwest (CNDDB, 2023), no suitable habitat, considered absent from the project site
Taxidea taxus American badger	CSC	Reported from the Arroyo Hondo watershed two miles to the west in 2003 (CNDDB, 2023), no suitable habitat, considered absent from the project site
Felis concolor Southern California mountain lion	SC	Tracks observed at Baron Ranch during CRLF surveys conducted since 2010; may use the Baron Ranch Trail for regional movements

Status Key:

BCC: Birds of Conservation Concern (USWFS)
CFP: Fully protected under the California Fish and Game Code
CSC: California Species of Special Concern (CDFW)
FC: Federal candidate for listing (USFWS)
FE: Federally-listed as Endangered (USFWS)
FT: Federally-listed as Threatened (USFWS)
SC: California candidate for listing (CDFW)
WL: Watch List (CDFW)

4.7 WETLANDS

Wetlands as defined by Santa Barbara County in the Environmental Thresholds and Guidelines Manual occur in Arroyo Quemado, approximately 150 feet west of the southern end of the proposed trail alignment.

5.0 IMPACT ANALYSIS

5.1 VEGETATION

Trail construction would result in the removal of approximately 0.5 acres (0.7 miles long by six feet wide) of an herbaceous fire recovery plant community. This vegetation is not rare, declining or vulnerable to extirpation. In the absence of the project, the proposed trail alignment would likely develop into ceanothus chaparral, but would require decades and lack of a major fire.

5.2 SPECIAL-STATUS PLANT SPECIES

Excluding protected oak trees, none were observed during the field survey. However, the field survey was conducted in late summer such that Catalina mariposa lily and white-veined monardella would have been difficult to detect. Therefore, a spring botanical survey is recommended to fully verify the lack of the special-status plant species along the proposed trail alignment. Approximately 11 coast live oak trees protected under County Ordinance No. 4491 occur along the alignment; however, none would be removed. Any minor trimming conducted to provide trail clearance would primarily affect only dead limbs.

5.3 SPECIAL-STATUS WILDLIFE SPECIES

Many of the special-status wildlife species listed in Table 2 are not anticipated to occur along the proposed trail alignment due to the lack of suitable habitat, and some may occur as a rare migrant or visitor.

Invertebrates. Crotch's bumblebee (State Candidate) is social and forms annual colonies composed of queens, workers and males. The nests are formed each spring by a single mated queen that overwinters in loose soil, leaf litter, woodpiles, rock walls and similar sites providing shallow cavities. From about March through April, these mated queens find and establish nest sites which can include rodent burrows, vacant bird nests, hollow logs, tree cavities and similar structures. The queen forages and lays eggs to start a new colony each year. The workers and males forage for pollen and nectar from about May through September to feed themselves and the larvae of the colony. In the fall, the entire colony dies except for mated queens which leave the nest and overwinter to establish a new nest and colony the following spring.

Padre Associates biologist Zack Abbey identified this species at the Landfill property on June 16, 2023, approximately 1.2 miles southwest of the proposed trail alignment. During the survey at the Landfill, Crotch's bumblebee appeared to focus on white sage flowers. Mr. Abbey conducted a bumblebee survey at lower Baron Ranch on July 25, 2023, in areas supporting sages and other typical bumblebee food plants, with negative results.

Based on the results of field surveys conducted in 2022 for the California Bumblebee Atlas, Crotch's bumblebees prefer milkweeds, sages, thistles, phacelias, California poppy and vetch for nectar and/or pollen food sources. These species are absent or rare along the proposed trail alignment. Even if Crotch's bumblebee nests in the area and forages along the trail alignment, due to the small area affected, linear nature and low quality of habitat removed is not anticipated to adversely affect this species.

Amphibians. CRLF (Federal Threatened) has persisted in Arroyo Quemado for at least 30 years. In addition, this species has been translocated from the Landfill property to Arroyo Quemado. Between 2009 and 2022 a total of 76 adult CRLF, 1,712 juvenile CRLF, and 1,114 larval CRLF were translocated from the in-channel sedimentation basins, the North Basin, South Basin, the Landfill operations deck (one individual), and from a vault under a truck scale (one individual) (Padre, 2022). Santa Barbara County has obtained an Incidental Take Permit from USFWS, which addresses inadvertent impacts to this species as a result of Landfill and ReSource Center operations and requires implementation of the Habitat Conservation Plan developed for Landfill and ReSource Center operations. The proposed trail alignment is not located within the area affected by the Habitat Conservation Plan (see Figure A). Therefore, any take of this threatened species associated with proposed trail construction and maintenance is not authorized under the County's Incidental Take Permit. Although highly unlikely, CRLF could be present in areas adjacent to Arroyo Quemado during trail construction and may be adversely affected. Therefore, mitigation is proposed to avoid potential take of this threatened species.

Coast range newt is known to occur in Arroyo Quemado, and terrestrial adults may be present in the vicinity of proposed trail construction activities during fall migration.

Reptiles. Southwestern pond turtle occurs within Arroyo Quemado, with the nearest suitable habitat located approximately 0.3 miles south of the project site. This species is highly aquatic and is not expected to be present outside the riparian corridor. Since the proposed trail alignment is located at least 100 feet from the riparian corridor, southwestern pond turtle is not anticipated to be adversely affected by trail construction and maintenance.

Birds. Bullock's oriole, oak titmouse, Nuttall's woodpecker, Cooper's hawk, Allen's hummingbird and yellow warbler have the potential to forage or breed within the Arroyo Quemado riparian corridor, which is located as close as 100 feet to the proposed trail alignment. Impacts to these special-status bird species would not be significant for the following reasons:

- No loss of suitable habitat would occur.
- Work would be conducted using hand tools with minimal dust generation and limited use of noise-producing power tools (chain saws).
- The work duration would be limited a few weeks.
- Work would be conducted at least 100 feet from suitable habitat.

Mammals. Ringtail and mountain lion may be present in the area during trail construction. However, these species are highly mobile and secretive and are anticipated to avoid the project site and vicinity during trail construction. Vegetation to be removed for trail construction does not provide cover for these species, or forging habitat for deer (primary prey of mountain lion). Therefore, significant impacts to these special-status mammal species is not anticipated.

5.4 WETLANDS

The proposed project would not result in any impacts to County-defined wetlands in Arroyo Quemado.

6.0 MITIGATION

The following mitigation measures have been incorporated into the proposed project.

6.1 SPECIAL-STATUS PLANT SPECIES

A spring botanical survey shall be conducted a qualified biologist familiar with the botanical resources of the region focusing on special-status plant species that may not have been detectable during the late summer field survey, including Catalina mariposa lily and white veined monardella. If special-status plant species are observed, the trail alignment shall be modified to avoid these species.

6.2 SPECIAL-STATUS WILDLIFE SPECIES

The following measures will be implemented to minimize the potential for adverse effects to CRLF and coast range newt:

- All trail construction staff (including volunteers) shall be provided training by a qualified biologist to recognize, stop work and avoid CRLF and coast range newt should they be observed during trail construction. Training materials shall be provided to all construction staff, and the training repeated if needed to address construction staff turnover.
- All trail construction conducted within 200 feet of the Arroyo Quemado riparian corridor shall be monitored by a qualified biologist. If CRLF is found within the work area during monitoring, trail construction shall be postponed until any CRLF detected leave the work area.
- Trail construction work is prohibited during or within three days following any rain event.
- Vehicular crossing or construction work in surface water (including rain puddles), is prohibited unless the area has been surveyed and cleared by a qualified biologist.

7.0 SANTA BARBARA COUNTY INITIAL STUDY CHECKLIST

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
Flora					
a. A loss or disturbance to a unique, rare or threatened plant community?				X	
b. A reduction in the numbers or restriction in the range of any unique, rare or threatened species of plants?		X			
c. A reduction in the extent, diversity, or quality of native vegetation (including brush removal for fire prevention and flood control improvements)?			X		
d. An impact on non-native vegetation whether naturalized or horticultural if of habitat value?				X	
e. The loss of healthy native specimen trees?				X	
f. Introduction of herbicides, pesticides, animal life, human habitation, non-native plants or other factors that would change or hamper the existing habitat?				X	
Fauna					
g. A reduction in the numbers, a restriction in the range, or an impact to the critical habitat of any unique, rare, threatened or endangered species of animals?		X			
h. A reduction in the diversity or numbers of animals onsite (including mammals, birds, reptiles, amphibians, fish or invertebrates)?			X		
i. A deterioration of existing fish or wildlife habitat (for foraging, breeding, roosting, nesting, etc.)?			X		
j. Introduction of barriers to movement of any resident or migratory fish or wildlife species?				X	
k. Introduction of any factors (light, fencing, noise, human presence and/or domestic animals) which could hinder the normal activities of wildlife?				X	

a. **No Impact**. Affected vegetation is common. No loss of or disturbance to a unique, rare or threatened plant community would occur.

b. **Less than Significant with Mitigation**. Special-status plants may be affected, mitigation has been provided to detect and avoid these species.

c. **Less than Significant**. Trail construction and maintenance may affect fire recovery of native chaparral vegetation along the proposed alignment. However, such vegetation is abundant in the region and project impacts would have a minimal effect on the extent, diversity, or quality of native vegetation.

d. **No Impact**. Weedy non-native vegetation occurs in small patches along the proposed trail alignment, but such vegetation does not provide habitat value.

e. **No Impact**. Coast live oak trees along the proposed trail alignment would not be removed or substantially trimmed.

f. **No Impact**. Proposed trail construction and maintenance does not include any use of herbicides or pesticides, and would not introduce non-native plants or animal life.

g. **Less than Significant with Mitigation**. CRLF may be affected, mitigation has been provided to detect and avoid this threatened species.

h. **Less than Significant Impact**. The small amount and low quality of wildlife habitat to be affected by trail construction and maintenance is not anticipated to substantially reduce the diversity or numbers of animals. Indirect impacts to species inhabiting riparian habitat along Arroyo Quemado would be less than significant.

i. **Less than Significant Impact**. Proposed trail construction and maintenance would affect only a small amount of low quality wildlife habitat. Indirect impacts to riparian habitat along Arroyo Quemado would be less than significant.

j. **No Impact**. The proposed realigned trail would not form a barrier to wildlife movement.

k. **No Impact**. The proposed realigned trail would introduce any lighting or fencing, and noise, human presence and domestic animal activity (dogs and horses) would not increase. Normal; activities of wildlife along the new trail alignment would not be affected.

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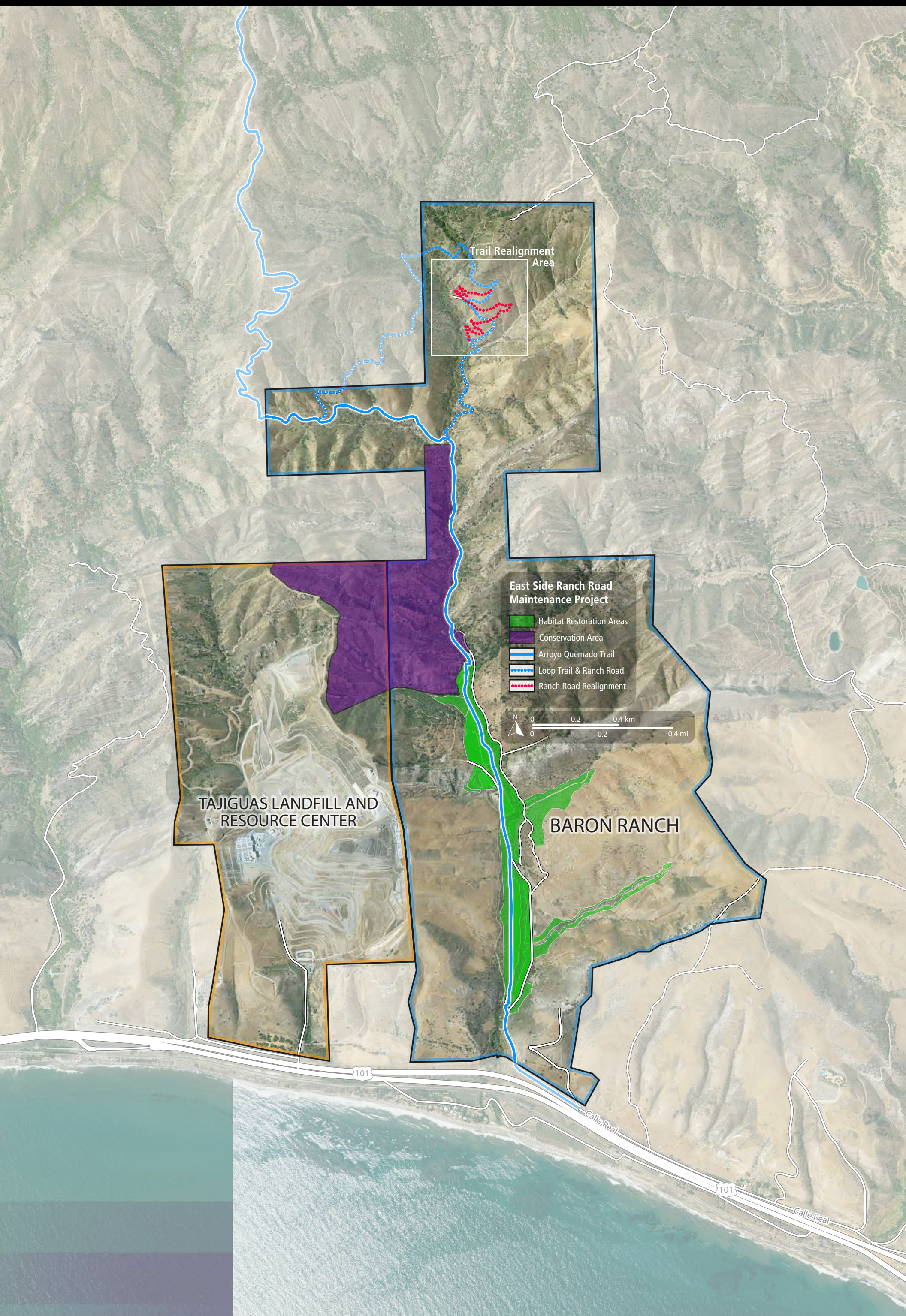
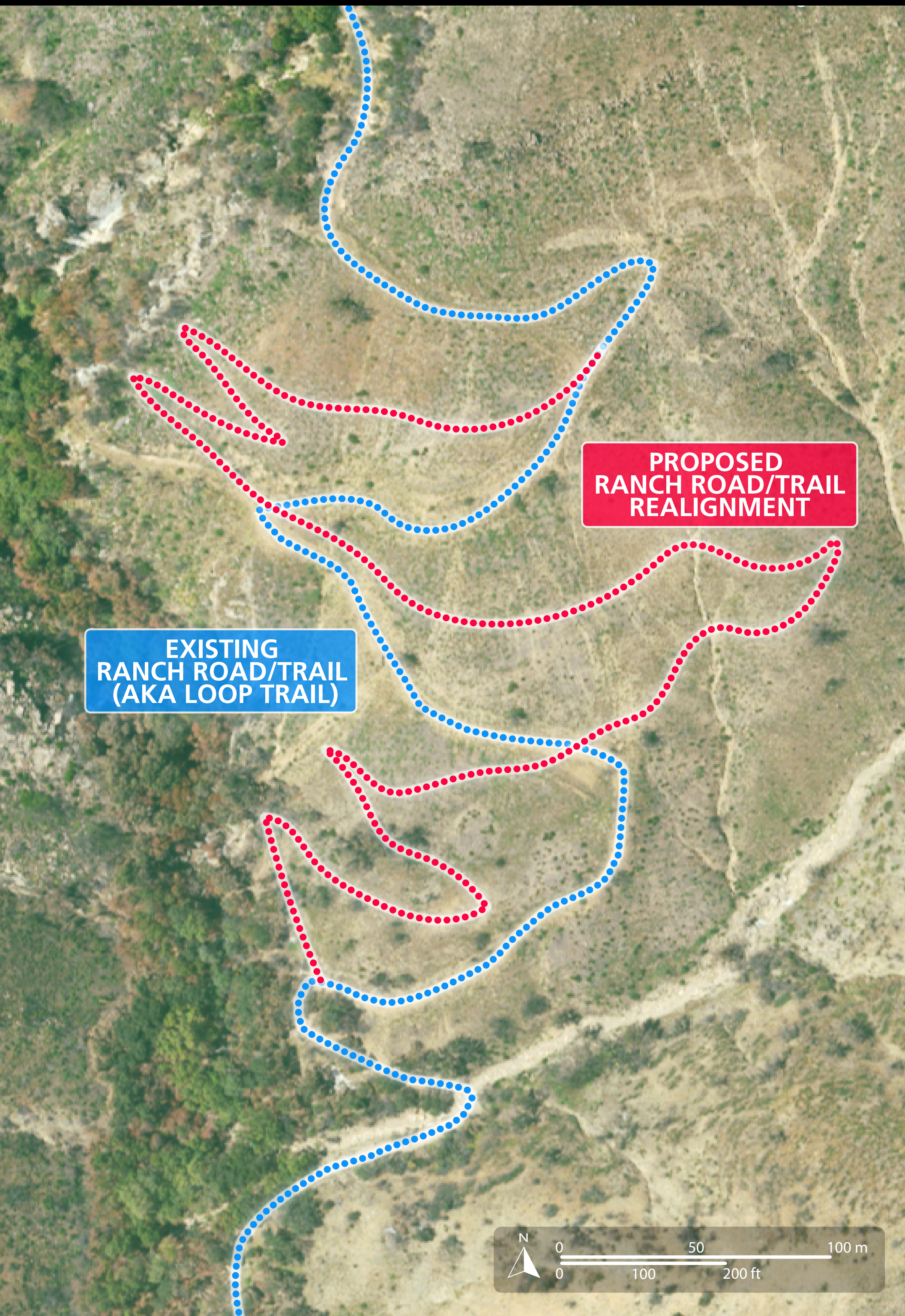
Baron Ranch Road/Trail Realignment

Figure A - Location



Baron Ranch Road/Trail Realignment

Figure B - New Route



a. Lower end of the proposed trail alignment, facing north (~MP 0.02)

b. Lower end of the proposed trail alignment, facing east (~MP 0.22)

c. Middle of the proposed trail alignment, facing northwest (~MP 0.46)

d. Upper end of proposed trail alignment, facing west (~MP 0.67)

SITE PHOTOGRAPHS
FIGURE C

APPENDIX A

VASCULAR PLANT FLORA OBSERVED ALONG THE BARON RANCH TRAIL REALIGNMENT SANTA BARBARA COUNTY, CALIFORNIA

Appendix A

Vascular Plant Flora Observed along the Baron Ranch Trail Realignment
Santa Barbara County, California

Scientific Name	Common Name	Habit	Family	Invasiveness Rating
Acmispon glaber	Deer-weed	S	Fabaceae	
*Ageratina adenophora**	Crofton weed	PH	Asteraceae	Moderate
*Anagallis arvensis **	Scarlet pimpernel	AH	Primulaceae	
Artemisia californica	California sagebrush	S	Asteraceae	
*Avena barbata **	Slender wild oat	AG	Poaceae	Moderate
Baccharis pilularis	Coyote brush	S	Asteraceae	
*Brachypodium distachyon**	False brome	AG	Poaceae	Moderate
*Brassica nigra**	Black mustard	AH	Brassicaceae	Moderate
*Bromus rubens **	Red brome	AG	Poaceae	High
Calystegia macrostegia ssp. cyclostegia	Morning-glory	PV	Convolvulaceae	
*Carduus pycnocephalus**	Italian thistle	BH	Asteraceae	Moderate
Ceanothus spinosus	Greenbark ceanothus	S	Rhamnaceae	
*Centaurea melitensis **	Tocalote	AH	Asteraceae	Moderate
Conyza canadensis	Horseweed	AH	Asteraceae	
Epilobium brachycarpum	Epilobium	AH	Onagraceae	
Encelia californica	California bush sunflower	S	Asteraceae	
*Foeniculum vulgare **	Sweet fennel	PH	Apiaceae	Moderate
Galium angustifolium	Bedstraw	S	Rubiaceae	
*Gastridium phleoides**	Nit grass	AG	Poaceae	
Pseudognaphalium californicum	Green everlasting	A/BH	Asteraceae	
Heteromeles arbutifolia	Toyon	S	Rosaceae	
*Hirschfeldia incana**	Summer mustard	BH	Brassicaceae	Moderate
*Lactuca serriola **	Prickly wild lettuce	AH	Asteraceae	
Lathyrus vestitus	Chaparral pea	PV	Fabaceae	
Elymus condensatus	Giant wild rye	PG	Poaceae	
Malacothrix saxatilis var. tenuifolia	Cliff aster	PH	Asteraceae	
Malosma laurina	Laurel sumac	S	Anacardiaceae	
Phacelia cicutaria	Caterpillar phacelia	AH	Boraginaceae	
Phacelia grandiflora	Large-flowered phacelia	AH	Boraginaceae	
*Phalaris aquatica**	Harding grass	PG	Poaceae	Moderate
*Plantago lanceolata**	English plantain	PH	Plantaginaceae	Limited
Prunus ilicifolia ssp. ilicifolia	Holly-leaved cherry	S	Rosaceae	
Quercus agrifolia var. agrifolia	Coast live oak	T	Fagaceae	
Rhamnus crocea	Spiny redberry	S	Rhamnaceae	
Salvia mellifera	Black sage	S	Lamiaceae	
Salvia spathacea	Hummingbird sage	PH	Lamiaceae	
Sambucus nigra ssp. caerulea	Blue elderberry	S	Adoxaceae	
Scrophularia californica	California figwort	PH	Scrophulariaceae	
*Silybum marianum**	Milk thistle	AH	Asteraceae	Limited
Stipa lepida	Foothill needlegrass	PG	Poaceae	
*Stipa miliacea**	Smilo grass	PG	Poaceae	Limited
Toxicodendron diversilobum	Poison oak	PH	Anacardiaceae	
Umbellularia californica	California bay-laurel	T	Lauraceae	
Hesteroyucca whipplei	Our Lord's candle	S	Agavaceae	

Notes: Scientific nomenclature follows the Jepson Manual (Baldwin et al., 2012).
Invasiveness rating from California Invasive Plant Inventory (Cal-IPC, 2006)
An "*" indicates non-native species which have become naturalized or persist without cultivation.
An "+" indicates California species planted at the site.

Habit Definitions:
AF = annual fern or fern ally.
AG = annual grass.
AH = annual herb.
BH = biennial herb.
PF = perennial fern or fern ally.
PG = perennial grass.
PH = perennial herb.
PV = perennial vine.
S = shrub.
T = tree.

Invasive Species Definitions:
High: severe ecological impact on physical processes, plant & animal communities, vegetatior
Moderate: substantial & apparent ecological impact on physical processes, plant & animal cor
Limited: minor ecological impacts on a statewide level

APPENDIX B

VERTEBRATE ANIMAL SPECIES REPORTED FROM BARON RANCH, SANTA BARBARA COUNTY, CALIFORNIA

Appendix B

Vertebrate Animal Species Reported from Baron Ranch
Santa Barbara County, California

FAMILY Common Name	Scientific Name	Habitat Use(1)	Status(2)
AMPHIBIANS AND REPTILES			
Bufonidae			
Western toad	*Anaxyrus boreas halophilus*	B/F	--
Ranidae			
California red-legged frog	*Rana draytonii*	B/F	FT, CSC
Hylidae			
Baja California tree frog	*Pseudacris hypochondriaca*	B/F	--
Salamandridae			
California newt	*Taricha torosa*	B/F	CSC
Plethodontidae			
Black-bellied slender salamander	*Batrachoseps nigriventris*	B/F	--
Emydidae			
Southwestern pond turtle	*Actinemys pallida*	B/F	CSC
Iguanidae			
*Western fence lizard	*Sceloporus occidentalis longipes*	B/F	--
*Side-blotched lizard	*Uta stansburiana elegans*	B/F	--
Colubridae			
San Diego gopher snake	*Pituophis melanoleucus annectens*	B/F	--
California whipsnake	*Masticophis lateralis lateralis*	B/F	--
Southern Pacific rattlesnake	*Crotalus viridis helleri*	B/F	--
BIRDS			
Ardeidae			
Great blue heron	*Ardea herodias*	F	--
Cathartidae			
Turkey vulture	*Cathartes aura*	B/F	--
Accipitridae			
Red-tailed hawk	*Buteo jamaicensis*	B/F	--
*Red-shouldered hawk	*Buteo lineatus*	B/F	--
Cooper's hawk	*Accipiter cooperi*	B/F	WL (nesting)
Falconidae			
American kestrel	*Falco sparverius*	B/F	--
Peregrine falcon	*Falco peregrinus anatum*	F	CP
Phasanidae			
*California quail	*Callipepla californicus*	B/F	--

Appendix B

Vertebrate Animal Species Reported from Baron Ranch
Santa Barbara County, California

FAMILY Common Name	Scientific Name	Habitat Use(1)	Status(2)
Columbidae			
Mourning dove	*Zenaida macroura*	B/F	--
Band-tailed pigeon	*Patagioenas fasciata*	B/F	--
Strigidae			
Great horned owl	*Bubo virginianus*	B/F	--
Northern pygmy owl	*Glaucidium gnoma*	F	--
Western screech owl	*Megascops kennicottii*	B/F	--
Tytonidae			
Barn owl	*Tyto alba*	F	--
Apodidae			
White-throated swift	*Aeronautes saxatilis*	B/F	--
Trochilidae			
Anna's hummingbird	*Calypte anna*	B/F	--
Black-chinned hummingbird	*Archilochus alexandri*	B/F	--
Picidae			
Northern flicker	*Colaptes cafer*	B/F	--
*Acorn woodpecker	*Melanerpes formicivorous*	B/F	--
Nuttall’s woodpecker	*Picoides nuttallii*	B/F	BCC
Tyrannidae			
Black phoebe	*Sayornis nigricans*	B/F	--
Pacific slope flycatcher	*Empiodonax difficilis*	B/F	--
Ash-throated flycatcher	*Myiarchus cinerascens*	B/F	--
Cassin's kingbird	*Tyrannus vociferans*	B/F	--
Hirundinidae			
Cliff swallow	*Petrochelidon pyrrhonota*	B/F	--
Northern rough-winged swallow	*Stelgidopteryx serripennis*	B/F	--
Sittidae			
White-breasted nuthatch	*Sitta carolinensis*	B/F	--
Cardinalidae			
Lazuli bunting	*Passerina amoena*	F	--
Corvidae			
American raven	*Corvus corax*	B/F	--
American crow	*Corvus brachyrhynchos*	B/F	--
*Western scrub jay	*Aphelocoma californica*	B/F	--

Appendix B

Vertebrate Animal Species Reported from Baron Ranch
Santa Barbara County, California

FAMILY Common Name	Scientific Name	Habitat Use(1)	Status(2)
Paridae			
Oak titmouse	*Baeolophus inornatus*	B/F	BCC
*Chestnut-backed chickadee	*Poecile rufescens*	F	--
Aegithalidae			
Common bushtit	*Psaltriparus minimus*	B/F	--
Troglodytidae			
Bewick's wren	*Thryomanes bewickii*	B/F	--
*House wren	*Troglodytes aedor*	B/F	--
Canyon wren	*Catherpes mexicanus*	B/F	--
Sylviidae			
Wrentit	*Chamaea fasciata*	B/F	BCC
Turdidae			
Western bluebird	Sialia mexicana	B/F	--
American robin	*Turdus migratorius*	B/F	--
Mimidae			
California thrasher	*Toxostoma redivivum*	B/F	BCC
Vireonidae			
Hutton's vireo	*Vireo huttoni*	B/F	--
Ptilogonatidae			
Phainopepla	*Phainopepla nitens*	B/F	--
Parulidae			
Yellow warbler	*Setophaga petechia*	B/F	CSC
Orange-crowned warbler	*Vermivora celata*	B/F	--
Common yellowthroat	*Geothlypis trichas*	B/F	--
Emberizidae			
Song sparrow	*Melospiza melodia cooperii*	B/F	--
*Spotted towhee	*Pipilo maculatus*	B/F	--
Blue grosbeak	*Guiraca caerulea*	B/F	--
Black-headed grosbeak	*Pheucticus melanocephalus*	B/F	--
*California towhee	*Melozone crissalis*	B/F	--
Hooded oriole	*Icterus cucullatus*	B/F	--
Bullock’s oriole	*Icterus bullockii*	B/F	BCC
Fringillidae			
House finch	*Carpodacus mexicanus*	B/F	--
Lesser goldfinch	*Spinus psaltria*	B/F	--
Purple finch	*Carpodacus purpureus*	B/F	--

Appendix B

Vertebrate Animal Species Reported from Baron Ranch
Santa Barbara County, California

FAMILY Common Name	Scientific Name	Habitat Use(1)	Status(2)
MAMMALS			
Didelphidae			
Virginia opossum	*Didelphis virginiana*	B/F	--
Canidae			
*Coyote	*Canis latrans*	B/F	--
Gray fox	*Urocyon cinereoargenteus*	B/F	--
Procyonidae			
Raccoon	*Procyon lotor*	B/F	--
Southern California ringtail	*Bassariscus astutus octavus*	B/F	CP
Mustelidae			
Striped skunk	*Mephitis mephitis*	B/F	--
Long-tailed weasel	*Mustela frenata*	B/F	--
Cervidae			
Black-tailed deer	*Odocoileus hemionus*	B/F	--
Felidae			
Southern California mountain lion	*Felis concolor*	F	SC
Bobcat	*Lynx rufus*	B/F	--
Sciuridae			
California ground squirrel	*Spermophilus beecheyi*	B/F	--
Western gray squirrel	*Sciurus griseus*	B/F	--
Merriam's chipmunk	*Tamias merriami*	B/F	--
Ursidae			
American black bear	*Ursus americanus*	F	--
Geomyidae			
*Botta's pocket gopher	*Thomomys bottae*	B/F	--
Arvicolidae			
California vole	*Microtus californicus*	B/F	--
Cricetidae			
Deer mouse	*Peromyscus maniculatus*	B/F	--
Big-eared woodrat	*Neotoma macrotis*	B/F	--
Leporidae			
Audubon's cottontail	*Sylvilagus audubonii*	B/F	--

* Observed during the September 11, 2023 field survey

Appendix B

Vertebrate Animal Species Reported from Baron Ranch
Santa Barbara County, California

FAMILY Common Name	Scientific Name	Habitat Use(1)	Status(2)

(1) Habitat Use
- B= Breeding
- F= Foraging

(2) Status
- CP= Protected under California Fish & Game Code
- CSC= CDFW Species of Special Concern
- SA= CDFW Special Animal
- SE= State Endangered
- FE= Federal Endangered
- WL= CDFW Watch List
- BCC=Birds of Conservation Concern
- SC=CDFW candidate for listing as endangered

Fish nomenclature based on Swift et al. (1993)
Amphibian and reptile nomenclature based upon Jensen (1983)
Bird nomenclature based upon American Ornithologists Union (2020)
Mammal nomenclature based upon Hall (1981)