

Legend

- Project Site
- Biological Study Area (500-ft radius)
- Proposed Linkage 7
- Public/Quasi-Public Lands

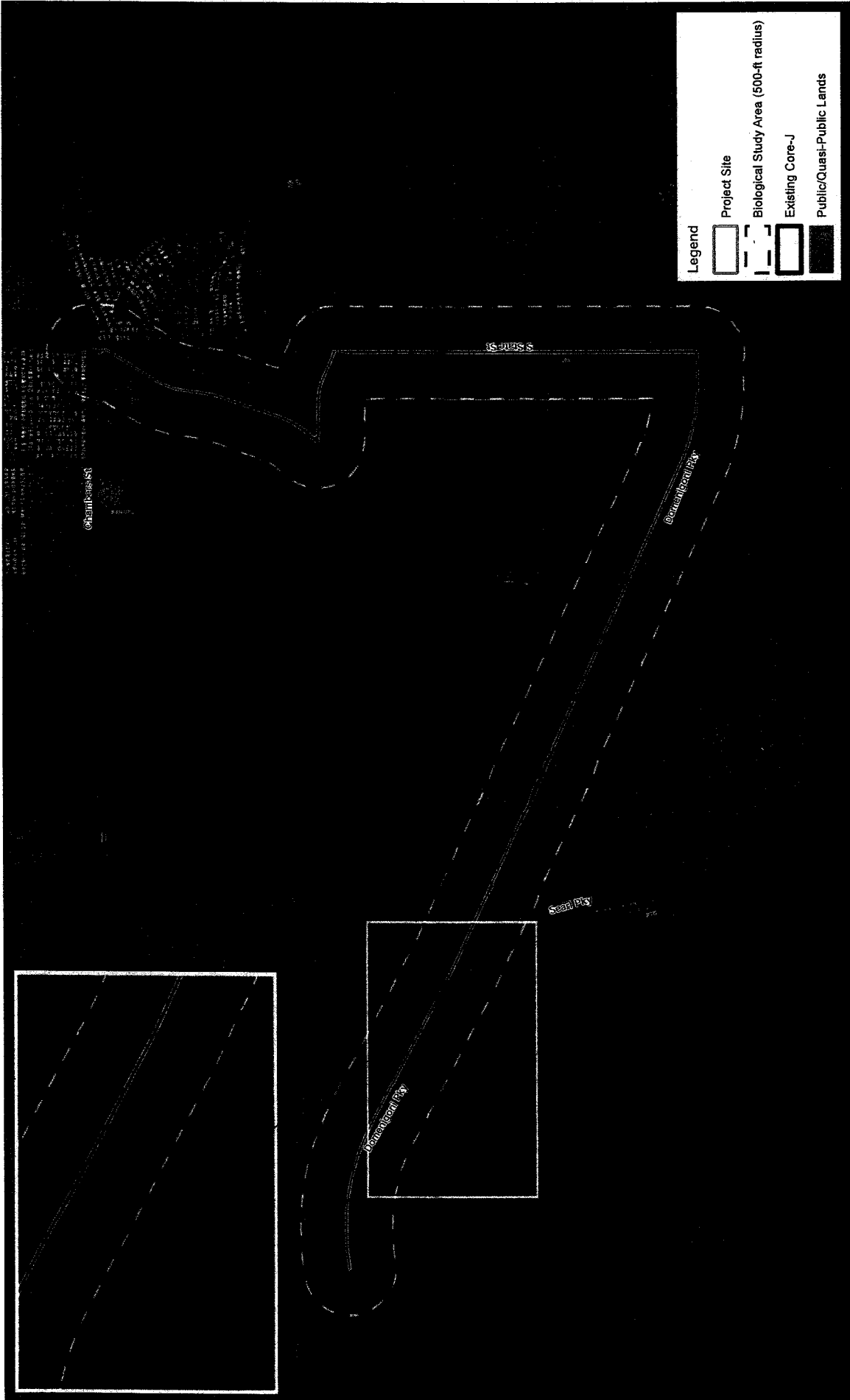
SALT CREEK TRAIL PROJECT
MSHCP Conservation Area (Western Segment)



Source: Riverside County, EBR World Imagery

Figure 3-4A

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SALT CREEK TRAIL PROJECT
MSHCP Conservation Area (Eastern Segment)

Figure 3-4B

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Stephens' Kangaroo Rat-Habitat Conservation Plan

Separate from the requirements of the MSHCP, Riverside County established a boundary for protecting the Stephens' kangaroo rat (SKR) (*Dipodomys stephensi*), a federally endangered and State threatened species that is not covered under the MSHCP. SKR is protected by the Stephens' kangaroo rat Habitat Conservation Plan (SKR HCP) (County Ordinance No. 663.10). The Project is located within the Fee Area for SKR. However, Section 10(d) of the ordinance specifically exempts development of any parcel used by local, State or federal entities for governmental purposes (i.e., public works, schools, government infrastructure) from payment of mitigation fees. As such, this Project is exempt from the SKR fee payment (Section 10(d) of Riverside County Ordinance 663.10).

3.4.2 Impact Assessment

Would the Project:

- a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

Less Than Significant Impact with Mitigation Incorporated.

Special-status Plant Species

The plants described below are considered to be of special concern based on: (1) federal, State, or local laws regulating their development; (2) limited distributions; and/or (3) the presence of habitat required by the special-status plants occurring on-site. A total of 32 special-status plant species were identified by the CNDDB, CNPS, and IPaC records searches as potentially occurring on the BSA. However, none of the 32 plant species were found to be present within the BSA during Michael Baker International's habitat assessment or sensitive plant survey.

Based on habitat requirements for specific species, availability and quality of habitats needed by special-status plant species, and known distribution, it was determined that smooth tarplant has a high potential to occur within the BSA. All other special-status plant species are presumed to have a low potential to occur or are presumed absent, and are not expected to occur since the Project site does not provide suitable habitat. Additionally, the RCIP query determined that the western segment of the BSA is located within the designated survey area for Narrow Endemic Plant Species as depicted in Figure 6-1 in Section 6.1.3 of the MSHCP. The RCIP lists the following Narrow Endemic Plant Species as potentially occurring within the BSA: Munz's onion, San Diego ambrosia, many-stemmed dudleya, spreading navarretia, California Orcutt grass, and Wright's trichocoronis.

A sensitive plant survey was conducted for the Project in accordance with the CDFW Guidelines for Assessing the Effects of Proposed Developments on Rare and Endangered Plants and Plant Communities as well as USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants in all areas of suitable habitat within the western and eastern segments of the BSA. Michael Baker International biologists conducted the first sensitive plant survey on May 9, 2016 and a second sensitive plant survey on June 20, 2016 to coincide with known flowering periods of sensitive plant species known to occur in the vicinity of the Project site. The surveys focused on the presence/absence of smooth tarplant, Munz's onion, San Diego ambrosia, many-stemmed dudleya, spreading navarretia, California Orcutt grass, and Wright's trichocoronis.

Despite extensive systematic searches, no sensitive plant species were observed during the surveys.

Smooth Tarplant

Smooth tarplant (CNPS Rare Plant Rank 1B.1) is a low-branched annual which grows to a height ranging from 10 to 120 centimeters. Its stems are stiff, white-hairy, and often bristle-covered with smooth and hairless leaf faces. It is found in southwestern California and northwestern Baja California, Mexico. This species occurs in San Bernardino County, Riverside County, and San Diego Counties with over 60 percent of the reported populations occurring in Western Riverside County. Smooth tarplant can be found in many habitats including alkali scrub, alkali playas, riparian woodland, watercourses, and grasslands with alkaline soils. This species is often associated with soil depressions, streambeds, grasslands, and disturbed sites in warm-to-hot sunny inland areas. Smooth tarplant is often found with other rare species, including San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*), Davidson's saltscale (*Atriplex serenana* var. *davidsonii*), Parish's brittlescale (*Atriplex parishii*), vernal barley (*Hordeum intercedens*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), and thread-leaved brodiaea (*Brodiaea filifolia*). Habitat for this species is threatened by habitat destruction and fragmentation from urban and agricultural development, alteration of hydrology and flood plains, channelization, excessive flooding, dicing and plowing, and competition from invasive plant species. However, unlike many other rare plant species, smooth tarplant is tolerant of disturbance.

Smooth tarplant was previously identified in the general vicinity of the western segment of the Project site in 2004 approximately 0.23 mile southeast of the proposed trail. At this location, two colonies with an unknown number of plants were observed east of the Railroad Canyon reservoir. The most recent occurrence of this species occurred in 2013 approximately 0.44 mile south of the proposed trail. Approximately 500 individuals were found within a seasonally wet depression that has been disked repeatedly within a vacant lot at the southwest corner of Lazy Creek Road and Murrieta Road. No subsequent observations around the western segment of the Project site have been made since then.

Minimal loss to vegetation located within the Project footprint is expected due to development primarily being located within existing dirt roads, trails, and disturbed areas. These areas are greatly disturbed and no longer contain any natural plant communities or habitat that is favored by sensitive plant species known to occur in the area. Smooth tarplant was identified approximately 0.52 mile southeast of the eastern segment of the Project site at the east end of Diamond Valley within an old dump site. No subsequent observations around the eastern segment of the Project site have been made since then. The smooth tarplant was not observed within the western and eastern segments of the trail during the sensitive plant survey. Therefore, smooth tarplant is presumed absent from the western and eastern segments of the trail and construction activities are not expected to result in impacts to smooth tarplant. While smooth tarplant is presumed absent from the Project western and eastern segments, it has a high potential to occur within the BSA; therefore, a pre-construction clearance survey will be conducted to determine if smooth tarplant is present on-site. It is also recommended that fugitive dust be contained to the maximum extent possible via the use of an on-site water truck(s). Implementation of mitigation measures BIO-1 and BIO-2 would ensure potential impacts to this special-status plant species would be less than significant.

Munz's Onion

Munz's onion (CNPS Rare Plant Rank 1B.1, federally and State threatened) is a slender plant that grows from a reddish bulb and produces a single stem. This species is found in heavy, often rocky, clay soils within grasslands and openings of coastal sage scrub on Elsinore Peak and in native grasslands and openings of chaparral in the Temescal Valley near Lake Elsinore. It grows in elevations ranging from 1,200 to 2,700 feet. Munz's onion forms small light colored flowers and blooms from March to May. It is adapted to periodic drought and can survive dry years underground as a bulb. It is endemic to western Riverside County and as of 2014, 19 occurrences are presumed to still exist in the county. Populations of Munz's onion within western Riverside County have been greatly reduced or eliminated by residential development and construction of Interstate 15 freeway.

Munz's onion was previously identified in the general vicinity of the western segment of the Project site in 1962, approximately 0.20 mile north of the proposed trail. This species was found within a dry, open field on an eastern facing slope by Railroad Canyon Road. No subsequent observations around the western segment of the Project site have been made since then.

Munz's onion was also identified approximately 1.62 miles southwest of the eastern segment of the Project site, 0.5 mile southeast of Warren Road. No subsequent observations around the eastern segment of the Project site have been made since then.

The Project site has been subject to various types of human disturbance including weed abatement, disking, and grading activities. Previous agricultural activities and continued weed abatement of the site would preclude the presence of this species. Further, the Project site does not contain chaparral, foothill woodland, or pinyon-juniper woodland habitats. While grasslands are present throughout Salt Creek and in some upland areas, these areas appear to be mowed and controlled and are unlikely to support this species.

Munz's onion was not observed during the 2016 focused survey and is presumed absent from the western and eastern segments of the trail and construction activities are not expected to result in impacts to Munz's onion. However, a pre-construction special-status plant clearance survey will be conducted within the BSA during the appropriate blooming season to determine if Munz's onion is present on-site. It is also recommended that fugitive dust be contained to the maximum extent possible via the use of an on-site water truck(s). Implementation of mitigation measures BIO-1 and BIO-2 would ensure potential impacts to this special-status plant species would be less than significant.

San Diego Ambrosia

San Diego ambrosia (CNPS Rare Plant Rank 1B.1, federally endangered) is a perennial plant that can grow up to 20 inches in height and is covered in short hairs. It is distributed in southern California from northwestern Riverside County, south through western San Diego County, to northwestern Estado de Baja California, Mexico. San Diego ambrosia can be found at elevations at or below 1,600 feet in Riverside County and 600 feet in San Diego County. It primarily occurs on upper terraces or drainages and rivers. Several patches of San Diego ambrosia can be found within the watershed of a large vernal pool at the Barry Jones Wetland Mitigation Bank in Riverside County. Within the mitigation bank areas, this species can be found in open grassland of native and non-native plant species, and openings in coastal sage scrub on sandy loam or clay soils. It can also be found in disturbed habitats such as fire fuel breaks and edges of dirt roadways. Development and highway construction have been the biggest threat to San Diego ambrosia throughout its range.

The closest recorded occurrence of San Diego ambrosia was found approximately 6.31 miles northwest of the Project site, 0.5 mile southeast of Steele Peak. No subsequent observations around the western segment of the Project site have been made since then. Per CNDDDB records, San Diego ambrosia has not been identified as occurring within the general vicinity of the eastern segment of the Project site.

Based on the conditions of the habitat within the western and eastern segments of the BSA, it was determined that the BSA does not provide suitable habitat for San Diego ambrosia. The BSA has been subject to various types of human disturbance including weed abatement, disking, and grading activities. The BSA lacks the habitat that this species is typically found in, including chaparral and vernal pools. Coastal scrub habitat is present in the vicinity of the eastern segment of the BSA, but is not within the Project footprint, and grasslands are generally highly disturbed throughout the entire BSA where they occur. In addition, there are no known populations on or within the immediate vicinity of the BSA. San Diego ambrosia was not observed during the 2016 focused survey and is presumed absent.

San Diego ambrosia was not observed within the western and eastern segments of the trail during the 2016 sensitive plant survey. Therefore, construction activities are not expected to result in impacts to San Diego ambrosia. However, a pre-construction special-status plant clearance survey will be conducted within the BSA during the appropriate blooming season to determine if San Diego ambrosia is present on-site. It is also recommended that fugitive dust be contained to the maximum extent possible via the use of an on-site water truck(s). Implementation of mitigation measures BIO-1 and BIO-2 would ensure potential impacts to this special-status plant species would be less than significant.

Many-Stemmed Dudleya

Many-stemmed dudleya (CNPS Rare Plant Rank 1B.2) is a succulent plant also known by the common name many-stemmed live-forever. It is a small plant with a basal rosette of 6 to 15 grass-like fleshy leaves that grow 4 to 15 centimeters long and 2 to 6 millimeters wide. The flowers are a lemon yellow color and flower between the months of April to June. It grows in elevations ranging from 48 to 2,528 feet. Many-stemmed dudleya grows in heavy clay and rocky soils in barren areas within coastal sage scrub and chaparral habitats. It is endemic to southern California with most of the known occurrences being in Orange County. Many-stemmed dudleya is threatened by development, road construction, and recreational activities.

Many-stemmed dudleya has been recorded as occurring 8.40 miles northwest of the western segment of the Project site on the south side of Alberhill Mountain, adjacent to open pit clay mines. No subsequent observations around the western segment of the Project site have been made since then. Per CNDDDB records, many-stemmed dudleya has not been identified as occurring within the general vicinity of the eastern segment of the Project site.

Based on the poor conditions of the habitat in the western and eastern segments of the BSA and the lack of suitable soil types for this species, it was determined that the BSA does not provide suitable habitat for many-stemmed dudleya. The BSA lacks the appropriate soil types that this species occurs in, and there are no known populations on or within the immediate vicinity of the Project site. Additionally, the BSA has been subject to various types of human disturbance including weed abatement, disking, and grading activities. Previous agricultural activities and continued weed abatement of the BSA would likely preclude the presence of this species. Many-stemmed dudleya was not observed during the 2016 focused survey and is presumed absent.

Many-stemmed dudleya was not observed within the western and eastern segments of the trail during the 2016 sensitive plant survey. Therefore, construction activities are not expected to result in impacts to many-stemmed dudleya. However, a pre-construction special-status plant clearance survey will be conducted within the BSA during the appropriate blooming season to determine if many-stemmed Dudleya is present on-site. It is also recommended that fugitive dust be contained to the maximum extent possible via the use of an on-site water truck(s). Implementation of mitigation measures BIO-1 and BIO-2 would ensure potential impacts to this special-status plant species would be less than significant.

Spreading Navarretia

Spreading navarretia (CNPS Rare Plant Rank 1B.1, federally threatened) is an annual herb that grows between 4 to 6 inches tall with flowers that vary in color from white to lavender white. This plant is found in vernal pool habitats in portions of Los Angeles, Riverside, Orange, and San Diego counties in California. It is also found in alkali grasslands, alkali playas and alkali sinks. It grows in elevations ranging from sea level to 4,250 feet. Spreading navarretia has a blooming period within the months of April to June. Within southern California, it is known only from Lake Elsinore and is more common eastward to Hemet and at Camp Pendleton.

Spreading navarretia was previously identified in the general vicinity of the western segment of the Project site in 2005 approximately 0.80 mile south of the Project site. At this location, one colony was detected within a 0.1 acre vernal pool. No subsequent observations around the western segment of the Project site have been made since then.

Spreading navarretia was identified approximately 1.36 miles northwest of the eastern segment of the Project site, south of Ryan Airport in a detention basin. A population of approximately 450 plants was identified at this location. No subsequent observations around the eastern segment of the Project site have been made since then.

Based on the conditions of the habitat within the western and eastern segments of the BSA, it was determined that the BSA does not provide suitable habitat for this species. The Project site has been subject to various types of human disturbance including weed abatement, disking, and grading activities. Previous agricultural activities and continued weed abatement of the site would likely preclude the presence of this species. The BSA lacks the habitat that this species is typically found in, including chenopod scrub, vernal pools, marshes, and swamps. Spreading navarretia was not observed during the 2016 focused survey and is presumed absent.

Spreading navarretia was not observed within the western and eastern segments of the trail during the 2016 sensitive plant survey. Therefore, construction activities are not expected to result in impacts to spreading navarretia. However, a pre-construction special-status plant clearance survey will be conducted within the BSA during the appropriate blooming season to determine if spreading navarretia is present on-site. It is also recommended that fugitive dust be contained to the maximum extent possible via the use of an on-site water truck(s). Implementation of mitigation measures BIO-1 and BIO-2 would ensure potential impacts to this special-status plant species would be less than significant.

California Orcutt Grass

California orcutt grass (CNPS Rare Plant Rank 1B.1, federally and State endangered) is a tufted annual grass that grows 2 to 8 inches tall. It is restricted to southern California and a few historical occurrences in northern Baja California, Mexico. This species is restricted to deep ephemeral vernal pools underlain by clay soils. In southern California, vernal pools are topographic features in close proximity with a variety of vegetation communities, including grasslands, coastal sage scrub, maritime succulent scrub, maritime and chamise chaparral, coniferous forest, and montane wet meadow. The seeds of this annual grass germinate in the deepest portions of ephemeral pools. Threats to this species include urban and agricultural development, grazing, altered hydrology, off-road vehicle use, trampling, grazing, and non-native plants. California orcutt grass is currently considered to be extant at 28 occurrences in Ventura County, Los Angeles County, Riverside County, and San Diego County.

California orcutt grass was previously identified as occurring 0.52 mile south of the western segment of the Project site. No subsequent observations around the western segment of the Project site have been made since then.

California orcutt grass was identified approximately 2.70 miles northwest of the eastern segment of the Project site northwest of the intersection of California Avenue and Stowe Road. Populations of this species were located within the "Stowe" vernal pools. No subsequent observations around the eastern segment of the Project site have been made since then.

Based on the conditions of the habitat within the western and eastern segments of the BSA, it was determined that the BSA does not provide suitable habitat for this species. The BSA has been subject to various types of human disturbance including weed abatement, disking, and grading activities. Previous agricultural activities and continued weed abatement of the site would likely preclude the presence of this

species. While the BSA has been mapped to contain soils that would be conducive to supporting vernal pool habitat, these areas have been heavily disturbed and mixed with other soils to the extent that they are not expected to support this habitat anymore. California orcutt grass was not observed during the 2016 focused survey and is presumed absent.

California orcutt grass was not observed within the western and eastern segments of the trail during the 2016 sensitive plant survey. Therefore, construction activities are not expected to result in impacts to California orcutt grass. However, a pre-construction special-status plant clearance survey will be conducted within the BSA during the appropriate blooming season to determine if California orcutt grass is present on-site. It is also recommended that fugitive dust be contained to the maximum extent possible via the use of an on-site water truck(s). Implementation of mitigation measures BIO-1 and BIO-2 would ensure potential impacts to this special-status plant species would be less than significant.

Wright's Trichocoronis

Wright's trichocoronis (CNPS Rare Plant Rank 2B.1) is an annual herb that is primarily restricted to the alkali floodplains of the San Jacinto River in association with Willows, Domino, and Traver soils. This species grows in elevation ranging from 16 to 1,427 feet. It is less than 30 centimeters tall and blooms from May to September. This species can also be found at two core locations along the middle segment of the San Jacinto River and in the San Jacinto Wildlife Area. Suitable habitat for Wright's trichocoronis includes floodplains dominated by alkali playas, vernal pools, and alkali grasslands. This species is found in association with other rare plant species including San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*), Davidson's saltscare (*Atriplex serenana* var. *davidsonii*), vernal barley (*Hordeum intercedens*), smooth tarplant, and spreading navarretia (*Navarretia fossalis*). Threats to this species within California include urbanization, agricultural conversion, and alteration of required hydrology. In Riverside County, this species is threatened by habitat destruction and fragmentation due to urban development, agriculture, pipeline construction alteration of hydrology and floodplain dynamics, excessive flooding, channelization, off-road vehicle activity, trampling by cattle and sheep, weed abatement, fire suppression practices (including disking and plowing), and competition from alien plant species.

Per CNDDDB records, Wright's trichocoronis has not been identified as occurring within the general vicinity of the western and eastern segments of the Project site. Based on the conditions of the habitat within the western and eastern segments of the BSA, it was determined that the BSA does not provide suitable habitat for this species. The BSA has been subject to various types of human disturbance including weed abatement, disking, and grading activities. Previous agricultural activities and continued weed abatement of the BSA would likely preclude the presence of this species. The BSA lacks the habitat that this species is typically found in, including vernal pools, marshes and swamps, riparian forests, or meadows and seeps. There is some riparian forest habitat on the western edge of the western segment of the BSA near the intersection of Goetz Road and Newport Road; however, this is a relatively narrow area with extensive disturbance around it; the surrounding area has been restored from disturbed habitat. In addition, there are no known populations on or within the immediate vicinity of the Project site. Wright's trichocoronis was not observed during the 2016 focused survey and is presumed absent.

Wright's trichocoronis was not observed within the western and eastern segments of the trail during the 2016 sensitive plant survey. Therefore, construction activities are not expected to result in impacts to Wright's trichocoronis. However, a pre-construction special-status plant clearance survey will be conducted within the BSA during the appropriate blooming season to determine if Wright's trichocoronis is present on-site. It is also recommended that fugitive dust be contained to the maximum extent possible via the use of an on-site water truck(s). Implementation of mitigation measures BIO-1 and BIO-2 would ensure potential impacts to this special-status plant species would be less than significant.

Special-status Animal Species

The special-status animal species listed below are considered to be of special concern based on: (1) federal, State, or local laws regulating their development; (2) limited distributions; and/or (3) the habitat requirements of special-status animals occurring on site. A total of 53 special-status animal species were identified by the CNDDDB and IPaC records searches as potentially occurring within the BSA. Of the 53 species identified, 17 special-status animal species have been determined to have a moderate to high potential to occur within the Project's BSA. Of these, two species were observed during field surveys, including burrowing owl and golden eagle. All other special-status wildlife species were determined to have a low potential to occur or are presumed absent and are not expected to occur. Special-status species observed or determined to have a high potential to occur within the BSA are discussed below.

Burrowing Owl

Burrowing owl, a California species of special concern, was previously documented within the BSA during focused surveys conducted by FirstCarbon Solutions in 2014, followed by a general assessment in 2015. In addition, a burrowing owl was also observed during the June 20, 2016 sensitive plant survey on the northern side of Salt Creek, along the existing dirt trail between the residential development to the north and Salt Creek to the south.

The proposed western and eastern segments of the trail generally follow existing roads and trails, with minimal direct impacts to surrounding habitat areas. Although not anticipated, development of the Project has the potential to have both direct and indirect impacts to burrowing owl species during the avian breeding season (generally February 1st to August 31st) season when individuals may be attempting to incubate eggs or raise young. Implementation of mitigation measure BIO-3 would reduce potential impacts to burrowing owl to less than significant.

Golden Eagle

Golden eagle, a State fully protected species and watch list species, was previously documented within the BSA during surveys conducted by FirstCarbon Solutions in 2015. Golden eagle was not observed during the 2016 surveys conducted by Michael Baker. The proposed western and eastern segments of the trail do not provide suitable nesting habitat for this species. However, the open non-native grasslands fields within the western and eastern segments of the BSA provide suitable foraging habitat for golden eagle.

The proposed western and eastern segments of the trail generally follow existing roads and trails, with minimal direct impacts to surrounding habitat areas. Temporary impacts may occur to golden eagle foraging opportunities during construction activities, but no impacts to golden eagle breeding behaviors are anticipated. Implementation of mitigation measure BIO-4 would reduce potential impacts to golden eagle to less than significant.

Cooper's Hawk

The closest known record of Cooper's hawk, a California watch list species, is a 2014 eBird record located approximately 0.5 mile northeast of the BSA, east of the intersection of State Street and Stetson Avenue. There is suitable foraging habitat throughout the western and eastern segments of BSA, but there is no suitable nesting habitat for this species within the western and eastern segments of the BSA. This species is adapted to urban environments and commonly occurs. Cooper's hawk was not observed during the field surveys.

The proposed western and eastern segments of the trail generally follow existing roads and trails, with minimal direct impacts to surrounding habitat areas. Temporary impacts may occur to Cooper's hawk foraging opportunities during construction activities, but no impacts to Cooper's hawk breeding behaviors

are anticipated since they do not nest in this region. Implementation of mitigation measure BIO-4 would reduce potential impacts to Cooper's hawk to less than significant.

Ferruginous Hawk

The closest known record of ferruginous hawk, a State watch list species, is a 2013 eBird record located immediately outside of the BSA in the open, disked fields northeast of the intersection of Domenigoni Parkway and State Street. Suitable foraging habitat for this species is primarily located in these disked fields within the eastern segment of the BSA. This species is a winter resident and does not nest in southern California. Ferruginous hawk was not observed during any of the field surveys.

The proposed western and eastern segments of the trail generally follow existing roads and trails, with minimal direct impacts to surrounding habitat areas. Temporary impacts may occur to ferruginous hawk foraging opportunities during construction activities, but no impacts to Ferruginous hawk breeding behaviors are anticipated since they do not nest in this region. Implementation of mitigation measure BIO-4 would reduce potential impacts to Ferruginous hawk to less than significant.

California Horned Lark

The closest known record of California horned lark, a State watch list specie, is a 2001 CNDDDB record that encompasses Salt Creek, generally between Goetz Road and Normandy Road. There is suitable nesting and foraging habitat for this species within the non-native grassland habitats within the western and eastern segments of the BSA. California horned lark was not observed during any of the field surveys.

The proposed western and eastern segments of the trail generally follow existing roads and trails, with minimal direct impacts to surrounding habitat areas. Impacts to California horned lark may occur during construction activities. Development of the Project has the potential to have both direct and indirect impacts to California horned lark. Construction-related disturbance may have an adverse impact on this species, especially during the avian nesting season when individuals within the western and eastern segments of the BSA may be attempting to incubate eggs or raise young. Construction-related noise or visual disturbances may disrupt nesting activities or may cause birds to leave the area until construction has vacated. In extreme cases nesting efforts may be abandoned, resulting in take of young or eggs. Implementation of mitigation measure BIO-4 would reduce potential impacts to California horned lark to less than significant.

Oregon Vesper Sparrow

The closest known record of vesper sparrow is a 2009 eBird record located approximately 2.4 miles southeast of the western segment of the BSA, off of Briggs Road near the Wilderness Lakes Resort. There is suitable foraging habitat for this species throughout the western and eastern segments of the BSA, but it is a winter resident and does not nest in southern California. It is unknown if this record is of an Oregon vesper sparrow, a California species of special concern, or of a western vesper sparrow (*Pg. confines*), as vesper sparrow subspecies are difficult to distinguish in the field. Oregon vesper sparrow was not observed during any of the field surveys.

The proposed western and eastern segments of the trail generally follow existing roads and trails, with minimal direct impacts to surrounding habitat areas. Temporary impacts may occur to Oregon vesper sparrow foraging opportunities during construction activities, but no impacts to Oregon vesper sparrow breeding behaviors are anticipated since they do not nest in this region. Implementation of mitigation measure BIO-4 would reduce potential impacts to vesper sparrow to less than significant.

Yellow Warbler

The closest known record of yellow warbler, a California species of special concern, is a 2014 eBird record located approximately 1.3 miles north of the western segment of the BSA at Rancho Ramona Park. There is suitable foraging and nesting habitat for this species in the southern cottonwood willow riparian forest plant community in Salt Creek between Goetz Road and Normandy Road within the western segment of the BSA. Yellow warbler was not observed during any of the field surveys.

The proposed western and eastern segments of the trail generally follow existing roads and trails, with minimal direct impacts to surrounding habitat areas. Development of the Project has the potential to have indirect impacts to yellow warbler occurring within the southern cottonwood willow riparian forest plant community adjacent to the western segment of the trail, outside of the Project footprint. Construction-related disturbance may have an adverse impact on this species, especially during the avian nesting season when individuals may be attempting to incubate eggs or raise young. Construction-related noise or visual disturbances may disrupt nesting activities or may cause birds to leave the area until construction has vacated. In extreme cases nesting efforts may be abandoned, resulting in take of young or eggs. Implementation of mitigation measure BIO-4 would reduce potential impacts to yellow warbler to less than significant.

Least Bell's Vireo

Least Bell's vireo, a federally and State endangered species, was documented within the southern cottonwood willow riparian forest plant community associated with Salt Creek between Goetz Road and Normandy Road in the western segment of the BSA during the June 20, 2016 sensitive plant survey, outside of the Project footprint. However, the Project footprint would be located in an area that consists of an existing road/trail or has been previously disturbed. Much of the Project footprint is primarily devoid of vegetation. As a result, least Bell's vireo is not expected to occur within the western and eastern segments of the proposed trail. There is no designated Critical Habitat for this species within the BSA.

Under Section 6.1.2 of the MSHCP, focused surveys for least Bell's vireo are only necessary if their habitat would be impacted by construction. Because construction would not directly impact any of the suitable habitat for this species within the western segment of the BSA, focused surveys for least Bell's vireo would not be required.

The proposed western and eastern segments of the trail generally follow existing roads and trails, with minimal direct impacts to surrounding habitat areas. Development of the Project has the potential to have indirect impacts to least Bell's vireo occurring within the southern cottonwood willow riparian forest plant community adjacent to the western segment of the trail, outside of the Project footprint. Construction-related disturbance may have an adverse impact on this species, especially during the avian nesting season when individuals may be attempting to incubate eggs or raise young. Construction-related noise or visual disturbances may disrupt nesting activities or may cause birds to leave the area until construction has vacated. In extreme cases nesting efforts may be abandoned, resulting in take of young or eggs. Implementation of mitigation measure BIO-4 would reduce potential impacts to least Bell's vireo to less than significant.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less Than Significant Impact with Mitigation Incorporated. Habitats are considered to be of special concern based on: (1) federal, State, or local laws regulating their development; (2) limited distributions; and/or (3) support the habitat requirements of special-status plants or animals. State and/or federal

jurisdictional features (i.e., lakes, rivers, streams, ephemeral drainages, jurisdictional streambed and bank, and wetlands) are also considered natural communities of special concern.

Five (5) habitats and natural communities of special concern were documented within the BSA, which include jurisdictional waters (refer to Checklist Response 3.4.2 (c)), for a discussion of potential Project impacts to jurisdictional waters), southern cottonwood willow riparian forest, Riversidean sage scrub, mulefat scrub, and coastal California gnatcatcher Critical Habitat. The only habitat and/or natural community of special concern that would be impacted within both the western and eastern segments of the BSA from implementation of the Project are jurisdictional waters. All other natural communities (i.e., southern cottonwood willow riparian forest, Riversidean sage scrub, mulefat scrub, and coastal California gnatcatcher Critical Habitat) occurring within both the western and eastern segments of the BSA would not be directly impacted from development of the Project. However, Project implementation has the potential to have temporary, indirect impacts to these other natural communities.

Southern Cottonwood Willow Riparian Forest

The southern cottonwood willow riparian forest plant community encompasses approximately 17.15 acres on the western end of the western segment of the BSA and 0.88 acre in the center of the eastern segment of the BSA, north of Domenigoni Parkway. In the western segment of the BSA, this plant community has been restored within Salt Creek between Goetz Road and Normandy Road. On the eastern segment of the BSA, this plant community is found in a discreet patch north of the Project footprint.

The Project has been designed to avoid all direct impacts to the southern cottonwood willow riparian forest plant community. While this plant community was observed within the BSA, it is outside of the Project footprint and no direct impacts are anticipated to occur. However, development of the Project has the potential to result in temporary, indirect impacts to this plant community from construction-related activities such as fugitive dust, the windborne spread of non-native seeds, or high ambient noise levels during construction activities. Implementation of mitigation measure BIO-5 would reduce this potential impact to a less than significant level.

Riversidean Sage Scrub

The Riversidean sage scrub plant community encompasses approximately 2.12 acres in the western segment of the BSA and 24.60 acres in the eastern segment of the BSA. In the western segment of the BSA this plant community is located along a public nature trail associated with and south of Salt Creek near Goetz Road, and on the eastern segment of the BSA this plant community is located north and south of Domenigoni Parkway between Sanderson Avenue and Searl Parkway. South of Domenigoni Parkway this habitat is generally associated with Diamond Valley Lake, whereas north of the road this plant community is found in an isolated patch surrounded by non-native grassland.

The Project has been designed to avoid all direct impacts to the Riversidean sage scrub plant community. While this plant community was observed within the BSA, it is outside of the Project footprint and no direct impacts are anticipated to occur. However, development of the Project has the potential to result in temporary, indirect impacts to this plant community from construction-related activities such as fugitive dust, the windborne spread of non-native seeds, or high ambient noise levels during construction activities. Implementation of mitigation measure BIO-5 would reduce this potential impact to a less than significant level.

Mulefat Scrub

The mulefat scrub plant community encompasses approximately 12.33 acres in the western segment of the BSA and 3.87 acres in the eastern segment of the BSA. In the western segment of the BSA, this plant community is primarily located on the western end of the restored portion of Salt Creek between in

patches of restored vegetation both north and south of the southern cottonwood willow riparian forest southwest of Normandy Road. Within the eastern segment of the BSA, this plant community is found in a discrete patch north of the Project footprint west of Sanderson Avenue.

The Project has been designed to avoid all direct impacts to the mulefat scrub plant community. While this plant community was observed within both the western and eastern segments of the BSA, is outside of the Project footprint and no direct impacts are anticipated to occur. However, development of the Project has the potential to result in temporary, indirect impacts to this plant community from construction-related activities such as fugitive dust, the windborne spread of non-native seeds, or high ambient noise levels during construction activities. Implementation of mitigation measure BIO-5 would reduce this potential impact to a less than significant level.

California Gnatcatcher Designated Critical Habitat

The eastern segment of the BSA is located within coastal California gnatcatcher designated Critical Habitat Unit 10, San Bernardino and Riverside Counties (72 FR 72010-72213) (refer to Figure 3-3A, Critical Habitat - Western Segment and Figure 3-3B, Critical Habitat - Eastern Segment). As illustrated on Figures 3-3A and 3-3B, the Project footprint for both the western and eastern segments of the trail are not located within designated Critical Habitat; therefore, consultation with the USFWS for loss or adverse modification to Critical Habitat would not be required.

The Project has been designed to avoid all direct impacts to designated Critical Habitat. While designated Critical Habitat was observed within the BSA, it is located outside of the Project footprint and no direct impacts are anticipated to occur. However, development of the Project has the potential to result in temporary, indirect impacts to designated Critical Habitat from construction-related activities such as fugitive dust, the windborne spread of non-native seeds, or high ambient noise levels that are present in the habitat during construction. Implementation of mitigation measure BIO-5 would reduce this potential impact to a less than significant level.

Riparian/Riverine Habitat

The *Jurisdictional Delineation* report identified both State and federal jurisdictional areas within and adjacent to the proposed Project. No vernal pools, clay or restrictive soils were found on the Project site. It was determined that riparian/riverine habitats found on the Project site correspond with the CDFW jurisdictional areas.

As shown in Table 3-6, the Project would result in approximately 1.05 acres of permanent and 0.62 acre of temporary impacts to riparian/riverine habitat within Salt Creek, Sun City Channel, Drainage 1, and Drainage 2.

TABLE 3-6 IMPACTS TO RIPARIAN/RIVERINE HABITAT

	Permanent Impacts (acres)	Temporary Impacts (acres)
Salt Creek*	0.63	0.34
Sun City Channel	0.33	0.23
Drainage 1	0.07	0.01
Drainage 2	0.02	0.04
TOTALS	1.05	0.62

* Impacts to riparian/riverine habitat (CDFW jurisdictional streambed) within Salt Creek are attributable to the crossings at Murrieta Road and Bradley Road within the western trail segment.
Source: Michael Baker International 2017a.

The Project footprint was designed to avoid impacts to riparian/riverine habitats to the maximum extent possible by staying within existing dirt access road and trails. The western segment of the proposed trail would be constructed on an existing dirt access road/trail between Goetz Road and Normandy Road, then transitions on to an unimproved dirt access road for the remainder of its length on the northern bank of Salt Creek until I-215. The trail would be built upon the 13- to 24-foot wide dirt maintenance road that exists along the north side of the Salt Creek channel. The eastern segment of the proposed trail would be installed within the existing dirt parkway along the north side of Domenigoni Parkway and along the west side of State Street within MWD property, and along an existing maintenance road on the south side of Salt Creek to Chambers Street.

However, there are five (5) areas within the proposed trail alignment that could not be designed to avoid impacts to riparian/riverine habitat. More specifically, along the western trail segment this includes locations at: Salt Creek at Murrieta Road crossing; Salt Creek at Bradley Road crossing; Sun City Channel crossing; and at Drainage 2 (i.e., Salt Creek under I-215) (refer to Figures 3-5A through 3-5D). Along the eastern trail segment, impacts to riparian/riverine habitat would occur at the trail crossing at Drainage 1 as a result of extending the existing culvert at this location to accommodate the trail (refer to Figure 3-6B). Project construction would result in approximately 0.62 acre of temporary impacts to riparian/riverine habitat. This habitat would be restored to current conditions after construction is completed. The temporarily disturbed areas would be hydro-seeded with plant species found on-site. Mitigation measure BIO-6 through mitigation measure BIO-11 would minimize temporary impacts to riparian/riverine habitats.

The Project would result in approximately 1.05 acres of permanent impacts to riparian/riverine habitat within Salt Creek, Sun City Channel, Drainage 1, and Drainage 2. Although all impacts to riparian/riverine habitat cannot be avoided due to topographical and access/design limitations, mitigation measure BIO-12 would minimize permanent impacts to riparian/riverine habitats.

c) 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?

Less Than Significant Impact with Mitigation Incorporated. A Jurisdictional Delineation was conducted by Michael Baker International on December 10, 2015 to delineate the jurisdictional limits of the United States Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife’s (CDFW) within the proposed BSA; refer to Section 3.4.1 for BSA description.

Four (4) hydrogeomorphic features were observed within both the western and eastern segments of the trail: Salt Creek, Sun City Channel, and two unnamed drainage features (Drainage 1 and Drainage 2, respectively). Refer to Figures 3-5A through 3-5D, Jurisdictional Map – Western Segment and Figures 3-6A through 3-6D, Jurisdictional Map – Eastern Segment. Sun City Channel, Drainage 1, and Drainage 2 are tributaries to Salt Creek which flows in an east to west direction. Salt Creek then flows west into Canyon Lake on the eastern boundary of the BSA. Canyon Lake was created in 1927 after installation of the Railroad Canyon Dam which impounds the San Jacinto River and Salt Creek to fill the reservoir. Water from Canyon Lake flows west through the dam into Lake Elsinore; from Lake Elsinore, water flows out to Temescal Wash, which is ultimately tributary to the Santa Ana River (Relatively Permanent Water) and the Pacific Ocean (Traditional Navigable Water). Therefore, the four hydrogeomorphic features within the BSA would qualify as waters of the United States and fall under the regulatory authority of the USACE, RWQCB, and CDFW.

The Project would result in approximately 0.06 acre of permanent and 0.03 acre of temporary impacts to USACE and RWQCB non-wetland waters, and approximately 1.05 acres of permanent and 0.62 acre of temporary impacts to CDFW jurisdictional streambed from installation of the proposed western and eastern segments of the trail. Refer to Table 3-7.

TABLE 3-7 JURISDICTIONAL AREA IMPACT SUMMARY

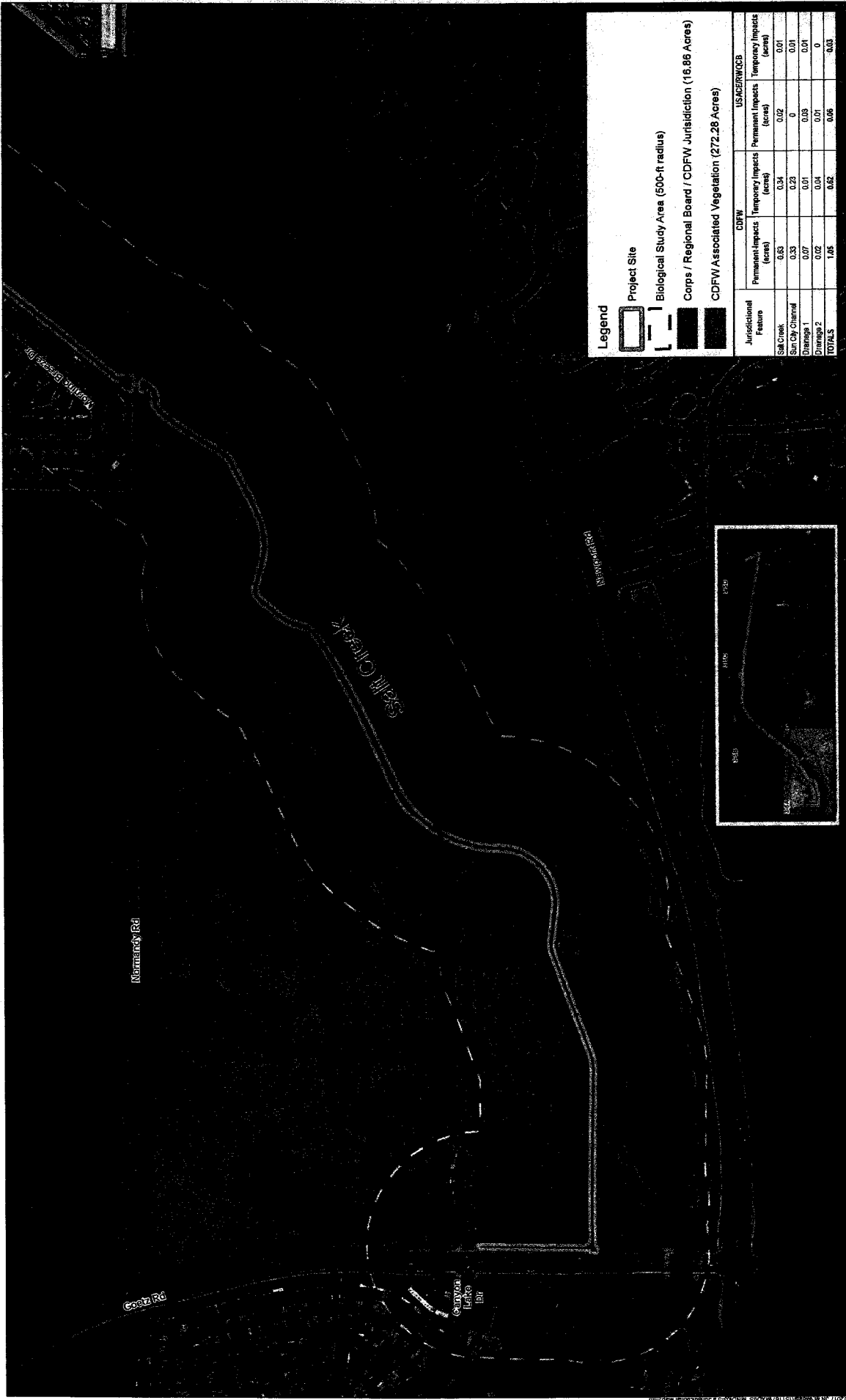
	Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)
SALT CREEK	0.63	0.34	0.02	0.01
SUN CITY CHANNEL	0.33	0.23	0	0.01
DRAINAGE 1	0.07	0.01	0.03	0.01
DRAINAGE 2	0.02	0.04	0.01	0
TOTALS	1.05	0.62	0.06	0.03

Source: Michael Baker International 2017a.

The Project footprint was designed to minimize impacts to jurisdictional waters to the maximum extent possible by reducing impacts to the jurisdictional waters within the BSA. The majority of the western segment of the trail was designed to be located within the existing dirt access road on the northern bank of Salt Creek, outside of the jurisdictional limits of Salt Creek. Within the western segment of the trail, unavoidable impacts to jurisdictional areas were designed to minimize its footprint within the jurisdictional feature by remaining as close to the toe of the northern slope of Salt Creek as possible (i.e., Murrieta Road and Bradley Road crossings), and entering and exiting the feature as quick as possible (i.e., Sun City Channel). Proposed improvements at these locations would continue to allow low flow water to pass under the trail while providing a stable surface above for trail users to traverse.

The eastern segment of the trail was also designed to be installed within MWD property and within existing dirt access roads limiting impacts to only one jurisdictional feature, Drainage 1. Impacts to Drainage 1 were further minimized by extending the existing box culvert to accommodate the new trail along Domenigoni Parkway instead of designing the alignment of the trail extending through Drainage 1.

A Stormwater Pollution Prevention Plan (SWPPP) would be prepared and implemented to address all construction-related activities, equipment, and materials that have the potential to impact water quality. The SWPPP would identify the sources of pollutants that may affect the quality of stormwater and include the construction site specific Best Management Practices (BMPs) to control pollutants such as sediment control, catch basin inlet protection, construction materials management and non-stormwater. BMPs would be implemented to the maximum extent practicable, meeting requirements in the city and/or county ordinances and any subsequent permits. All appropriate BMPs would be utilized during construction and maintenance to ensure that no indirect impacts occur to the downstream system. Fiber rolls (coconut or straw waddles) would be used to temporarily divert the flows. Implementation of mitigation measure BIO-6 through mitigation measure BIO-11 would further reduce impacts to less than significant.



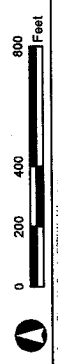
Legend

- Project Site
- Biological Study Area (500-ft radius)
- Corps / Regional Board / CDFW Jurisdiction (18.86 Acres)
- CDFW Associated Vegetation (272.28 Acres)

Jurisdictional Feature	CDFW		USACE/RW/CB	
	Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)
Salt Creek	0.85	0.34	0.02	0.01
Salt City Channel	0.35	0.23	0	0.01
Drainage 1	0.07	0.01	0.05	0.01
Drainage 2	0.02	0.04	0.01	0
TOTALS	1.05	0.62	0.06	0.03

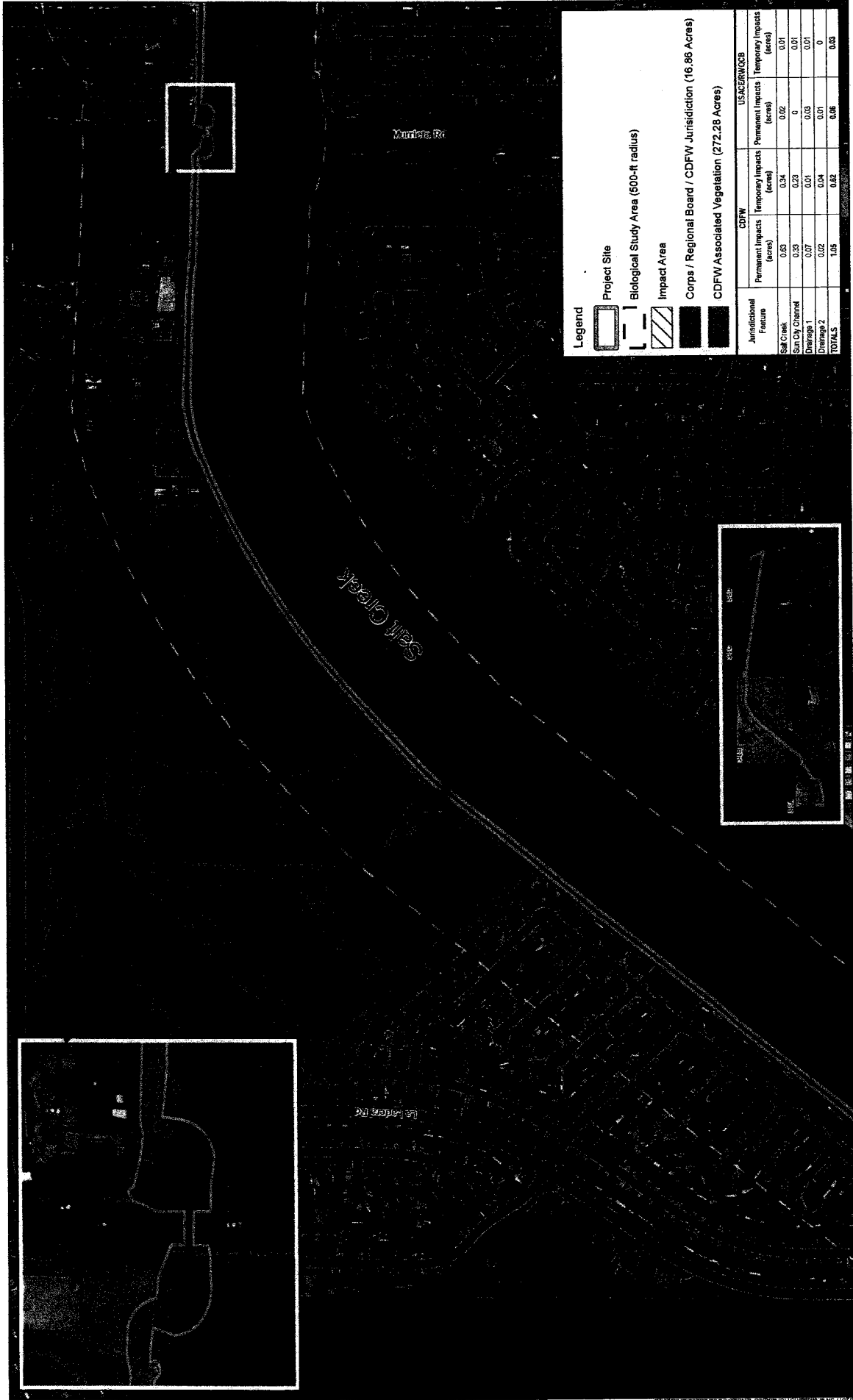
SALT CREEK TRAIL PROJECT
Jurisdictional Map (Western Segment)

Figure 3-6A



Source: Riverside County, ESRV World Imagery

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Legend

- Project Site
- Biological Study Area (500-ft radius)
- Impact Area
- Corps / Regional Board / CDFW Jurisdiction (16.86 Acres)
- CDFW Associated Vegetation (272.28 Acres)

Jurisdictional Feature	CDFW		USACE/RM/CB	
	Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)
Salt Creek	0.63	0.34	0	0.01
Sun City Channel	0.33	0.23	0	0.01
Drainage 1	0.07	0.01	0.03	0.01
Drainage 2	0.02	0.04	0	0
TOTALS	1.05	0.62	0.03	0.03

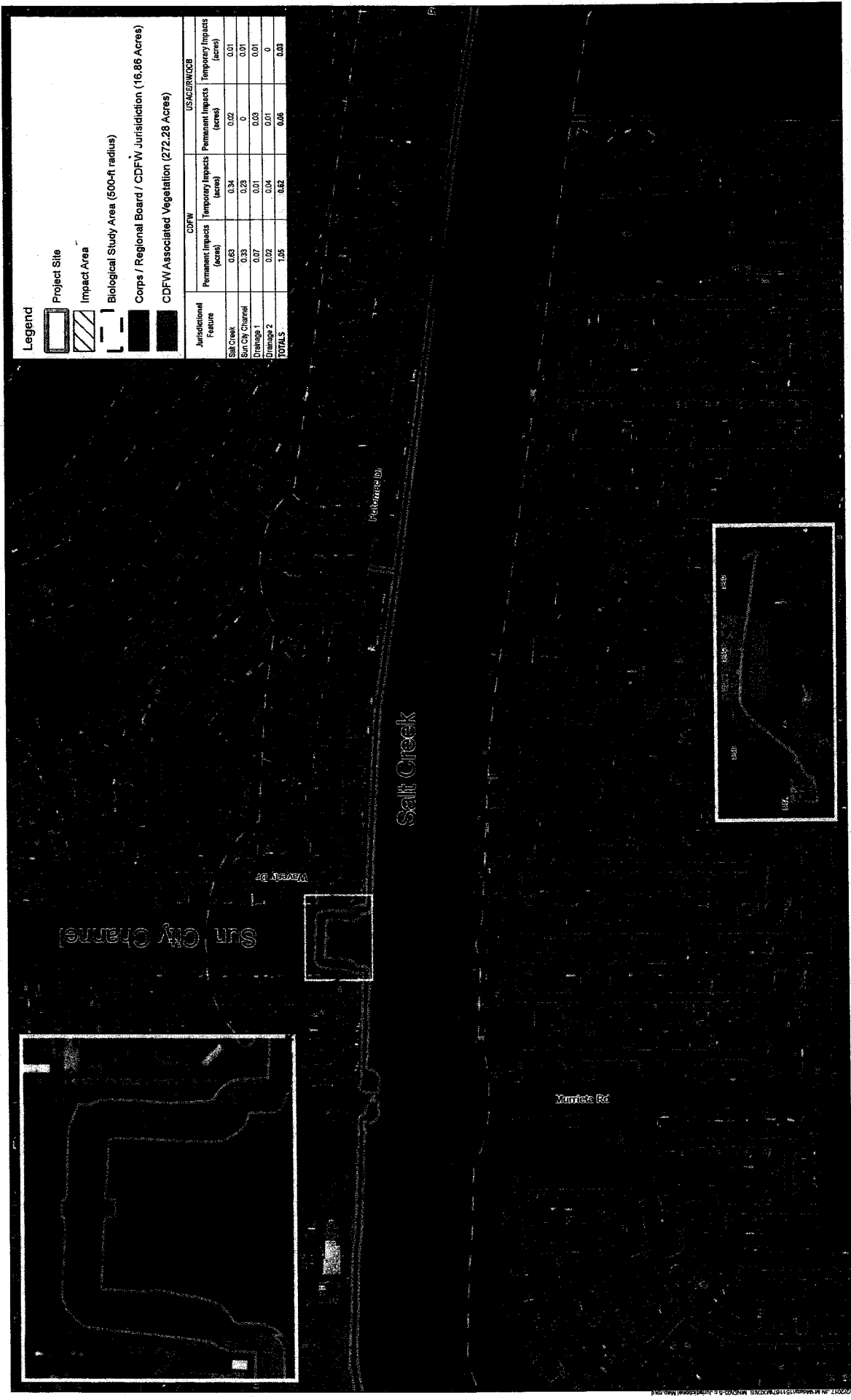
**SALT CREEK TRAIL PROJECT
Jurisdictional Map (Western Segment)**

Figure 3-5B



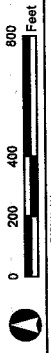
Source: Riverside County; Esri World Imagery

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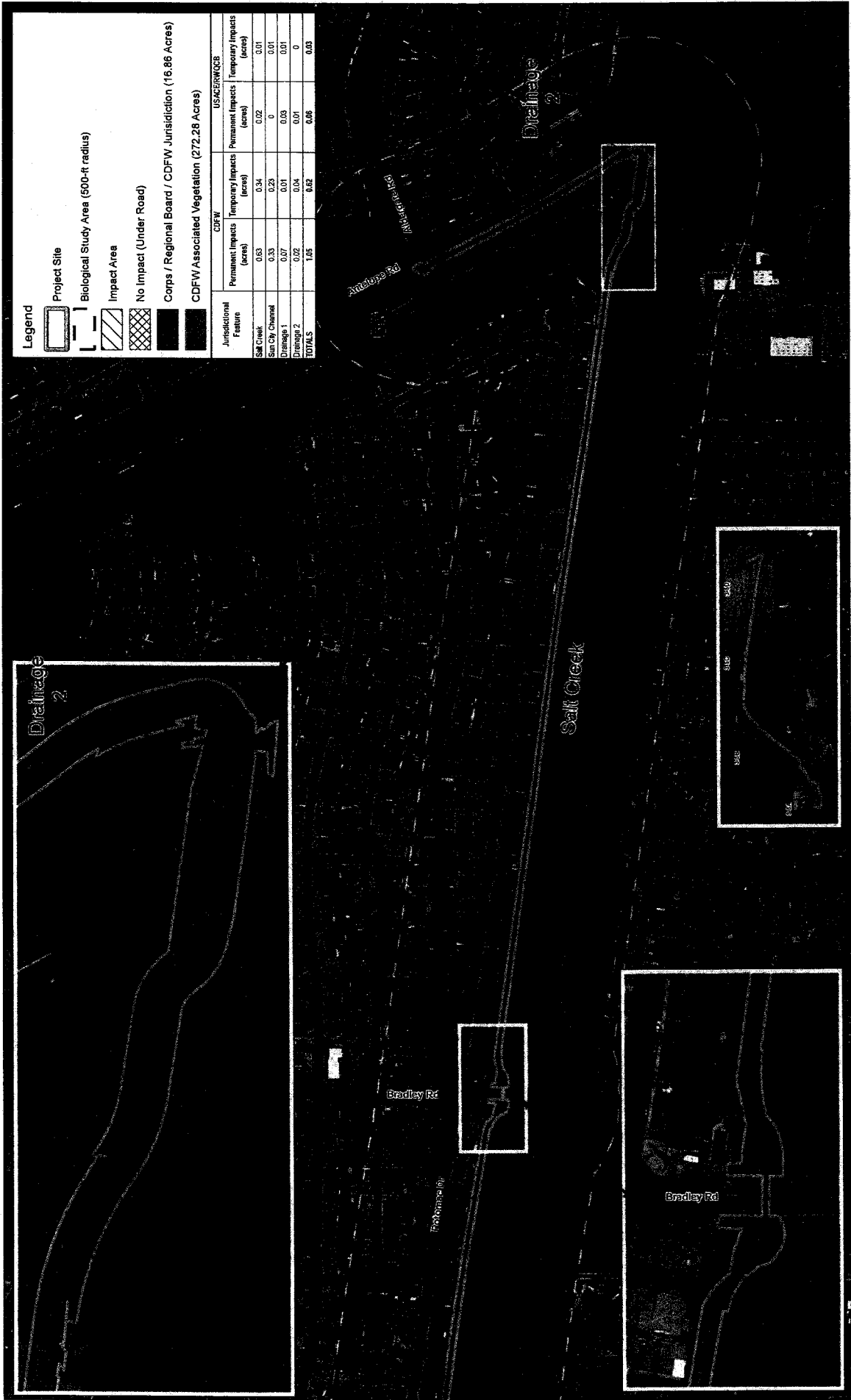
SALT CREEK TRAIL PROJECT
Jurisdictional Map (Western Segment)

Figure 3-5C



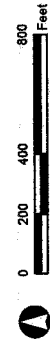
Source: Riverside County, ESRI World Imagery

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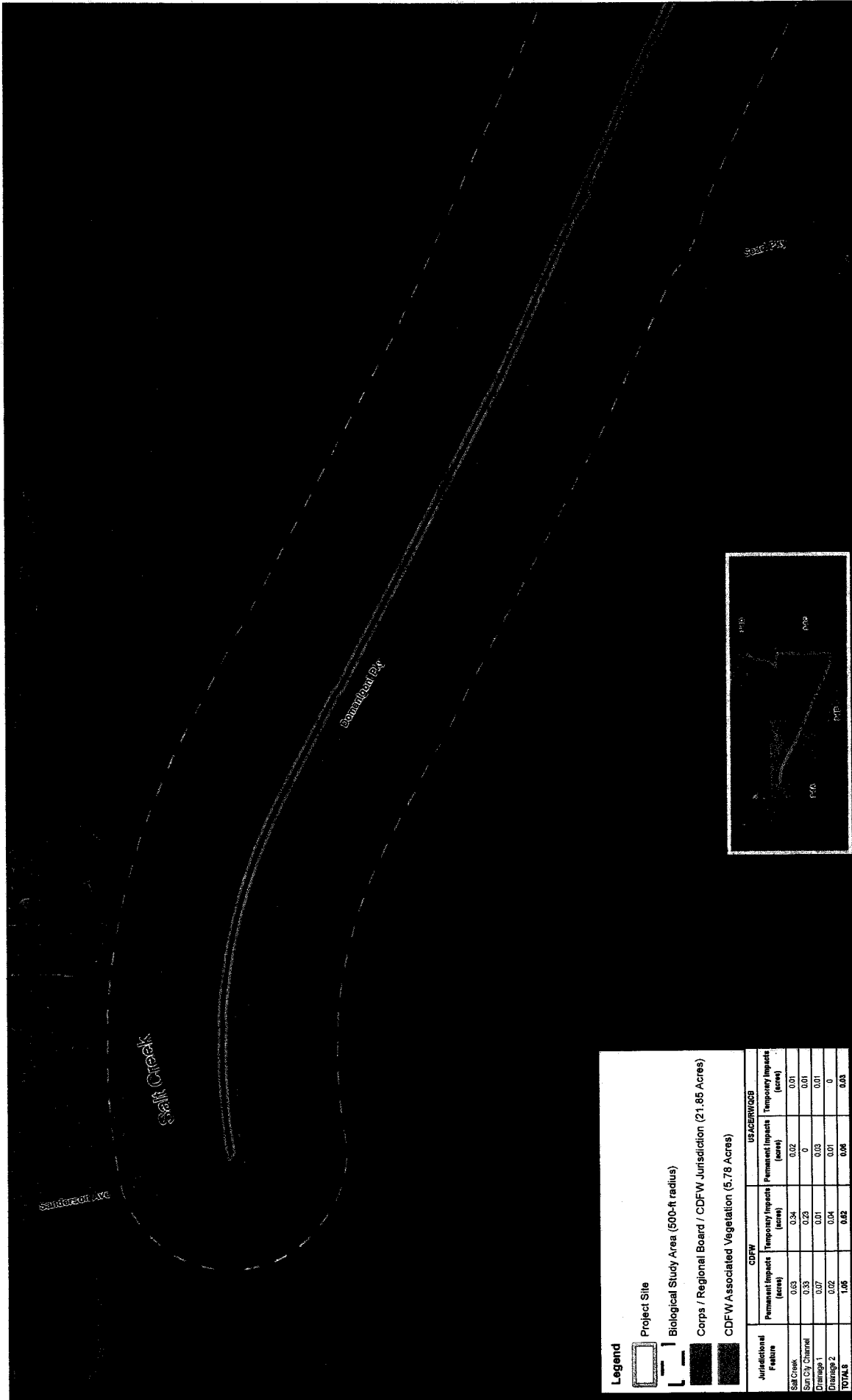
SALT CREEK TRAIL PROJECT
Jurisdictional Map (Western Segment)

Figure 3-5D



Source: Wetlands Count; ESRI World Imagery

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Legend

- Project Site
- Biological Study Area (500-ft radius)
- Corps / Regional Board / CDFW Jurisdiction (21.85 Acres)
- CDFW Associated Vegetation (5.78 Acres)

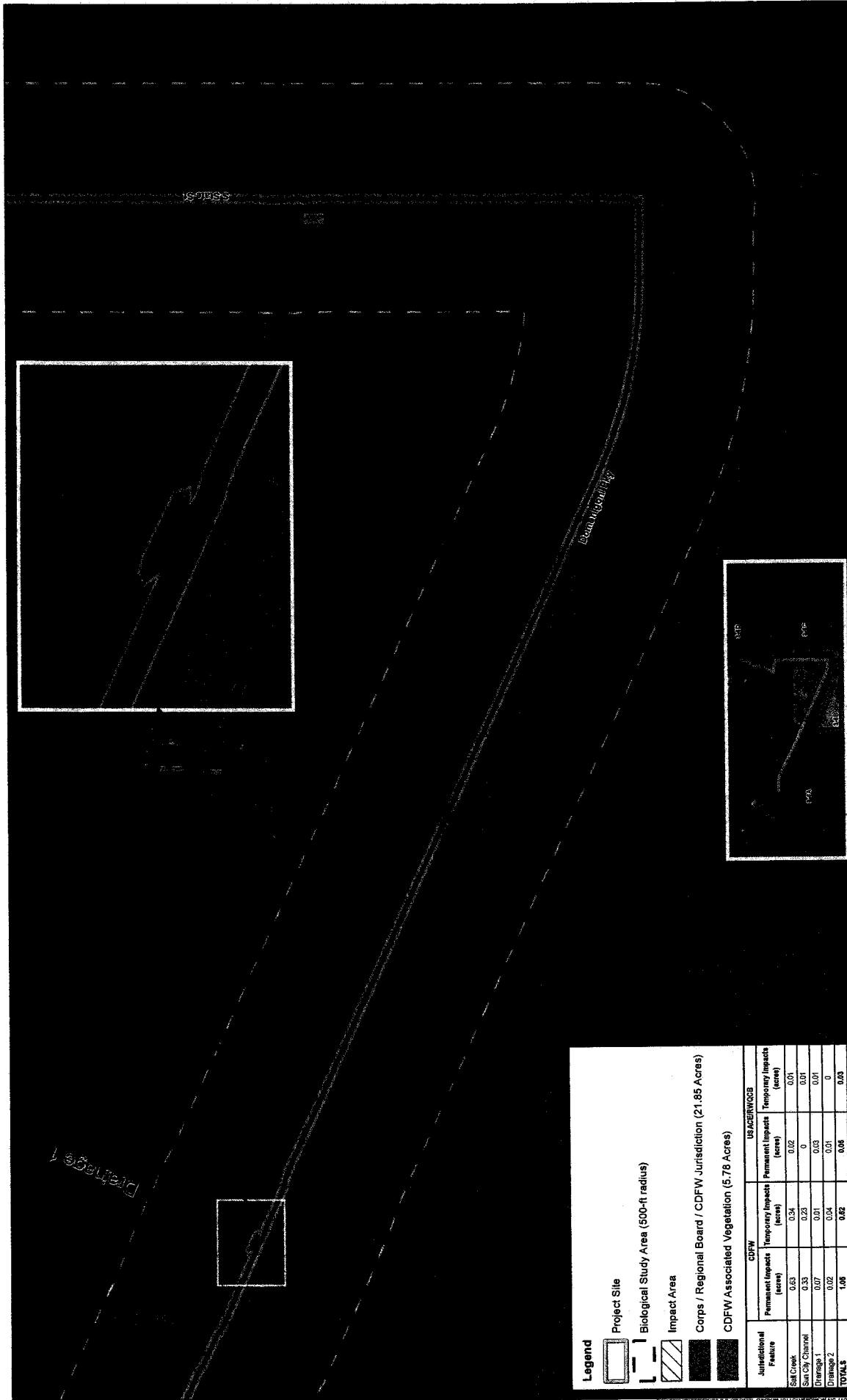
Jurisdictional Feature	CDFW		USACE/USFWS	
	Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)
Salt Creek	0.63	0.34	0.02	0.01
Salt City Channel	0.33	0.23	0	0.01
Drainage 1	0.07	0.01	0.03	0.01
Drainage 2	0.02	0.04	0.01	0
TOTALS	1.05	0.62	0.06	0.03



SALT CREEK TRAIL PROJECT
Jurisdictional Map (Eastern Segment)
 Figure 3-6A

Source: Riverside County, ERI, World Imagery

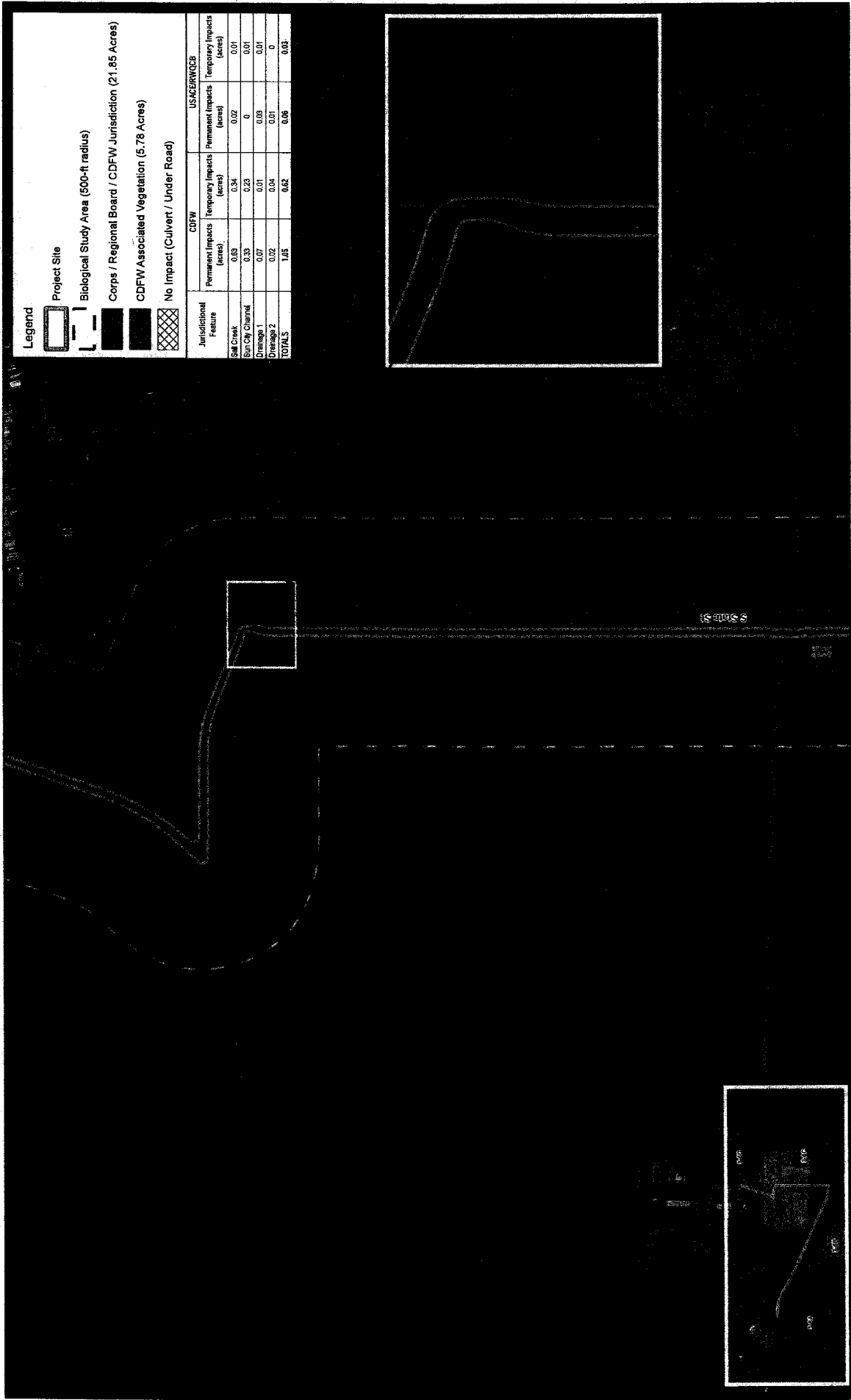
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SALT CREEK TRAIL PROJECT
Jurisdictional Map (Eastern Segment)

Figure 3-6B

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Legend

- Project Site
- Biological Study Area (500-ft radius)
- Corps / Regional Board / CDFW Jurisdiction (21.85 Acres)
- CDFW Associated Vegetation (5.78 Acres)
- No Impact (Culvert / Under Road)

Jurisdictional Feature	CDFW		USACE/RWQCB	
	Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)
Salt Creek	0.82	0.34	0.02	0.01
San City Channel	0.33	0.23	0	0.01
Drainage 1	0.07	0.01	0.09	0.01
Drainage 2	0.02	0.04	0.01	0
TOTALS	1.68	0.62	0.06	0.02

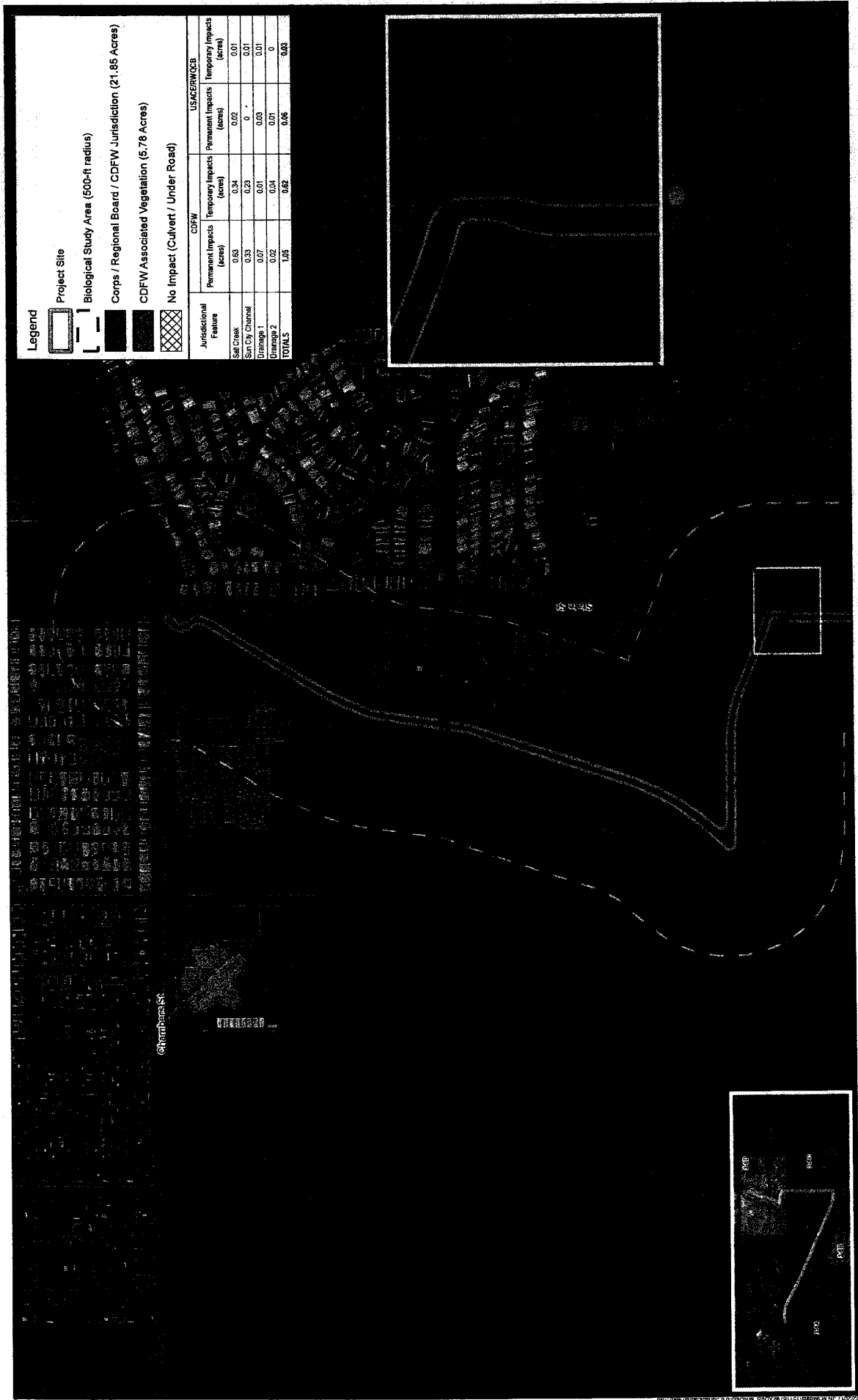
SALT CREEK TRAIL PROJECT
Jurisdictional Map (Eastern Segment)

Figure 3-6C



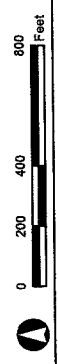
Source: Riverside County, EBH Field Imagery

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SALT CREEK TRAIL PROJECT
Jurisdictional Map (Eastern Segment)

Figure 3-6D



Source: Riverside County, ERI World Imagery

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d) Interfere substantially with the movement of any 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?

No Impact. Habitat linkages provide links between larger undeveloped habitat areas that are separated by development. Wildlife corridors are similar to linkages, but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species but inadequate for others. Wildlife corridors are significant features for dispersal, seasonal migration, breeding, and foraging. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

The primary corridor, within both the western and eastern segments of the BSA is Salt Creek which provides a linear path of open space along much of its length, for east to west wildlife movement opportunities between Canyon Lake on the western end of the western segment of the BSA and the Santa Rosa Hills just east of the eastern segment of the BSA. Although constrained by urban development, agriculture, and planned land uses, this corridor provides movement opportunities for wildlife species from the Hemet Area to Canyon Lake. In particular, Salt Creek, within both the western and eastern segments of the BSA, has the potential to provide movement opportunities for large mammals such as coyotes and bobcats (*Lynx Rufus*). Birds may use Salt Creek for movement; however, due to the lack of substantial riparian habitat upstream of Normandy Road, Salt Creek is less likely to be used as such.

The western segment of the BSA is primarily surrounded by existing development and planned land uses, while the eastern segment of the BSA is primarily surrounded by vacant, undeveloped land that was historically used for agricultural purposes, or left as open space. Land uses surrounding both the western and eastern segments of the BSA have removed natural plant communities from the area immediately surrounding the Project footprint for both the western and eastern segments of the trail. The Project would primarily be confined to existing areas that have been heavily disturbed and or developed. The proposed trail footprint would also impact non-native grassland habitats in the western segment of the trail within Salt Creek at the Murrieta Road crossing and within Sun City Channel, and the eastern end of the eastern segment of the trail.

Additionally, the Project footprint for both the western and eastern segments of the trail are not located within any MSHCP identified corridors or linkages. However, the eastern segment of the BSA is located approximately 150 feet northeast of Existing Core J, which is separated from the Project footprint by Domenigoni Parkway. Implementation of the Project would not disrupt or have any adverse effects on any migratory corridors or linkages in the surrounding area.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The City of Menifee Municipal Ordinance, Ordinance No. 2015-167 Chapter 9.86, Chapter 9.86 Park Design, Landscaping and Tree Preservation, is designed to protect trees, considered to be a community resource, from indiscriminate cutting or removal, to ensure and enhance public health, safety, and welfare through proper care, maintenance and preservation of trees, considered a community resource (Menifee Municipal Code 2017). The City of Hemet Municipal Code Article IV, Care and Maintenance of Street Trees, governs the planting of trees and the alteration and removal of street trees (Hemet Municipal Code 2016). Although the Project contains six plant communities consisting of southern cottonwood willow riparian forest, mulefat scrub, Riversidean sage scrub, non-native grassland, tamarisk scrub, and ornamental vegetation, as stated Checklist Response 3.4.2 (a) above, minimal loss to vegetation located within the Project site boundaries is expected due to development primarily being

located within existing dirt roads, trails, and disturbed areas. These areas are greatly disturbed and no longer contain any natural plant communities or habitat that is favored by sensitive plant species known to occur in the area. Site development would not conflict with any local policies or ordinances protecting biological resources, including tree preservation ordinances.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The Project was reviewed to determine consistency with the MSHCP. The western segment of the BSA is located within the Sun City/Menifee Area Plan of the MSHCP, and the eastern segment of the BSA is located within the San Jacinto Valley Area Plan of the MSHCP. Neither segment is located within any Criteria Cells, or cores, or linkages identified within the MSHCP; however, the eastern segment of the BSA is located approximately 150 feet northeast of Existing Core J, which is separated from the eastern segment of the trail by Domenigoni Parkway. The western segment of the trail is partially located within designated Public/Quasi-Public Lands, which are included within the MSHCP Conservation Area.

The Project is a Covered Activity, under Section 7.4.2, Conditionally Compatible Uses, of the MSHCP and Project is considered conditionally compatible with the overall conservation goals and objectives of the MSHCP and is covered within the MSHCP Conservation Area subject to the guidelines and criteria incorporated in Section 7.4.2. As depicted in Figure 7-3 of the MSHCP, the Project is shown as an adopted planned regional trail. Section 7.4.2 states that the covered public access uses within the MSHCP Conservation Area would be comprised of trails, facilities, and passive recreational activities. Construction of and improvements to these trails would be covered under the MSHCP.

All four hydrogeomorphic features observed within the BSA qualify as riparian/riverine habitat as defined under Section 6.1.2 of the MSHCP. Therefore, any alteration or loss of riparian/riverine habitat that may occur as a result of the Project would require the preparation of a DBESP analysis to ensure the replacement of any lost functions and values associated with all four hydrogeomorphic features. The DBESP analysis is separate from any regulatory approvals/permitting by the USACE, RWQCB, and CDFW. The extent of the riparian/riverine habitat on the Project site is synonymous with the jurisdiction of CDFW.

Separate from the requirements of the MSHCP, Riverside County established a boundary for protecting the Stephens' kangaroo rat (*Dipodomys stephensi*), a federally endangered and State threatened species that is not covered under the MSHCP. SKR is protected by the SKR HCP (County Ordinance No. 663.10). The Project is located within the Fee Area for SKR. However, Section 10(d) of the Ordinance specifically exempts development of any parcel used by local, State or federal entities for governmental purposes (i.e., public works, schools, government infrastructure) from payment of mitigation fees. As such, this Project is exempt from the SKR fee payment (Section 10(d) of Riverside County Ordinance 663.10).

In western Riverside County, the MSHCP serves as an Habitat Conservation Plan pursuant to Section 10(a)(1)(B) of the Endangered Species Act, as well as an Natural Community Conservation Plan (NCCP) under the NCCP Act of 2001. Since the Project is considered a Covered Activity under the MSHCP, and the County is a Permittee under the MSHCP, the proposed Project meets, and is consistent with, all pertinent MSHCP-related requirements.

3.4.3 Mitigation Measures

- BIO-1** A pre-construction clearance survey will be conducted within the Project area during the appropriate blooming season to determine if special-status plant species are present within the Project area. Surveys will provide 100 percent clearance of suitable habitat within the Project disturbance footprint for both the western and eastern segments of the trail. If special-status plant species are detected, the County will contact the Western Riverside County Regional Conservation Authority (RCA), USFWS, and CDFW to confirm appropriate measures are implemented to address the presence of special-status plant species.
- BIO-2** Fugitive dust will be contained to the maximum extent possible via the use of an on-site water truck(s), and all construction equipment, if left on-site, will be thoroughly cleaned of all weed seeds prior to entering the BSA.
- BIO-3** Within three days prior to ground disturbance, the construction area and adjacent areas within 500 feet of the Project footprint, would be surveyed by an Acceptable Biologist for burrows that could be used by burrowing owl. If a suitable burrowing owl burrow is observed, the biologist would determine if the burrow has recently been used or if an owl is present in the burrow. If the burrow is determined to be occupied, the burrow would be flagged and a 200-foot buffer during the non-breeding season and a 500-foot buffer during the breeding season or a buffer to the edge of the property boundary if less than 500 feet, would be established around the burrow. The buffer would be staked and flagged. No construction activities would be permitted within the buffer until the young are no longer dependent on the burrow. In coordination with CDFW, the no work buffer can be reduced depending on the behavior of the burrowing owls, topography, existing vegetation, human development, and land uses in an area.

It is recommended that a biological monitor be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest becomes inactive under natural conditions, construction activities may resume within the buffer area.

If the burrow is unoccupied, the burrow would be made inaccessible to owls, and construction activities may proceed. If either a nesting or escape burrow is occupied, owls shall be relocated pursuant to accepted Wildlife Agency protocols. A burrow is assumed occupied if records indicate that, based on surveys conducted following protocol, at least one burrowing owl has been observed occupying a burrow on site during the past three years. If there are no records for the site, surveys must be conducted to determine, prior to construction, if burrowing owls are present. Determination of the appropriate method of relocation, such as eviction/passive relocation or active relocation, shall be based on the specific site conditions (e.g., distance to nearest suitable habitat and presence of burrows within that habitat) in coordination with the CDFW. Active relocation and eviction/passive relocation require the preservation and maintenance of suitable burrowing owl habitat determined through coordination with the CDFW.

- BIO-4** If construction activities cannot occur outside of the avian nesting season (generally February 1st to August 31st) a pre-construction nesting bird clearance survey shall be conducted within three days prior to ground disturbance. The construction area and adjacent areas within 500 feet of the Project footprint would be surveyed by an Acceptable Biologist. If an active avian nest is discovered during the pre-construction clearance survey, construction activities should stay outside of a 500-foot buffer around the active nest to ensure that nesting behavior is not adversely affected by the construction activity. The buffer would be staked and flagged and signed for exclusion of construction activity. No construction activities would be permitted

within the buffer until the young are no longer dependent on the nest. In coordination with CDFW, the no work buffer can be reduced depending on the behavior of the Golden Eagle, Cooper's Hawk, Ferruginous Hawk, California Horned Lark, Vesper Sparrow, Yellow Warbler, and Least Bell's Vireo topography, existing vegetation, human development, and land uses in an area.

It is recommended that a biological monitor be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest becomes inactive under natural conditions, construction activities may resume within the buffer area.

BIO-5 The Project has been designed to avoid direct construction impacts to special-status plant communities by staying within previously disturbed areas. Avoidance and minimization measures shall be included in the Project specifications for implementation during construction to further reduce the potential for any temporary, indirect impacts to occur to these communities during construction activities, including the following:

- Trash and other debris shall be properly disposed of and not left on-site in areas where it could fall into protected habitat.
- Project boundaries shall be clearly marked with fencing, or other suitable type of marking material as directed by a qualified biologist. Vehicles and other Project construction personnel shall stay within these delineated Project boundaries.
- Sensitive areas (i.e., jurisdictional drainage features, Public/Quasi-Public Lands, southern cottonwood willow riparian forest) in proximity to the construction footprint shall be clearly marked, with fencing or other suitable type of marking material as directed by a qualified biologist, for awareness and avoidance.
- Refueling, washing, or other vehicular maintenance activities shall occur a minimum of 100 feet away from riparian areas, including southern cottonwood willow riparian forest habitat.
- Equipment would be maintained and checked at least on a daily basis for leaks.
- All vehicles leaks or other hazardous material leaks shall be contained and cleaned up immediately. All contaminated soil shall be removed from the site and disposed of properly.

BIO-6 During soil excavation, grading, or other subsurface disturbance within 100 feet of conserved riparian/riverine habitat on-site, the construction contractor shall supervise provision and maintenance of all standard dust control BMPs to reduce fugitive dust emissions, including but not limited to the following actions:

- Water any exposed soil areas a minimum of twice per day, or as allowed under any imposed drought restrictions. On windy days or when fugitive dust can be observed leaving the construction site, additional water shall be applied at a frequency to be determined by the on-site construction superintendent.
- ~~Pave, periodically water, or apply chemical stabilizer to construction access/egress points.~~
- Minimize the amount of area disturbed by clearing, grading, earthmoving, or excavation operations at all times.
- Operate all vehicles on graded areas at speeds less than 15 miles per hour.

- Cover all stockpiles that would not be utilized within three days with plastic or equivalent material, to be determined by the on-site construction superintendent, or spray them with a non-toxic chemical stabilizer.

BIO-7 The on-site construction contractor shall implement the following measures to minimize short-term noise levels caused by construction activities. Measures to reduce construction noise shall be included in contractor specifications and include, but not be limited to, the following:

- Properly outfit and maintain construction equipment with manufacturer-recommended noise-reduction devices to minimize construction-generated noise.
- Operate all diesel equipment with closed engine doors and equip with factory-recommended mufflers.
- Use electrical power, when feasible, to operate air compressors and similar power tools.
- Employ additional noise attenuation techniques, as needed, to reduce excessive noise levels within conserved Riparian/Riverine Habitat on-site, such as placement of temporary sound barriers or sound blankets at the top of slope adjacent to these areas.
- Locate construction staging areas at least 100 feet from jurisdictional areas.

BIO-8 To avoid light spillover into the adjacent conserved riparian/riverine habitat on-site, any proposed lighting fixtures within 100 feet of these areas shall incorporate internal baffles to direct the light towards the ground and shall have a zero side-angle cut-off to the horizon. All lighting and fencing for infrastructure adjacent to jurisdictional areas shall be designed or reviewed by a qualified biologist to allow wildlife to move without hindrance.

BIO-9 To address potential short-term impacts to water quality within the on-site drainages from construction runoff that may carry storm water pollutants, a SWPPP shall be implemented by the construction contractor as required by the California General Construction Storm Water Permit pursuant to the RWQCB regulations. The SWPPP shall identify BMPs related to the control of toxic substances, including construction fuels, oils, and other liquids. These BMPs would be implemented by the construction contractor prior to the start of any ground clearing activity, shall be subject to periodic inspections by the County and the Project's hydrological consultant, shall be maintained throughout the construction period and remain in place until all landscape and permanent BMPs are in place. BMPs shall be monitored and repaired if necessary to ensure maximum erosion, sediment, and pollution control.

- The County shall prohibit the use of erosion control materials potentially harmful to fish and wildlife species, such as mono-filament netting (erosion control matting) or similar material, within and adjacent to CDFW jurisdictional areas.
- All fiber rolls,² straw waddles, and/or hay bales utilized within and adjacent to the Project site shall be free of non-native plant materials.
- Permittee shall comply with all litter and pollution laws. All contractors, subcontractors, and employees shall also obey these laws and it shall be the responsibility of Permittee to ensure compliance.

² Fiber rolls or erosion control mesh shall be made of loose-weave mesh that is not fused at the intersections of the weave, such as jute, or coconut (coir) fiber, or other products without welded weaves. Non-welded weaves reduce entanglement risks to wildlife by allowing animals to push through the weave, which expands when spread.

- Water containing mud, silt, or other pollutants from grading, aggregate washing, or other activities shall not be allowed to enter a lake, streambed, or flowing stream or be placed in locations that may be subjected to high storm flows.
- Spoil sites shall not be located within a lake, streambed, or flowing stream or locations that may be subjected to high storm flows, where spoil shall be washed back into a lake, streambed, or flowing stream where it would impact streambed habitat and aquatic or riparian vegetation.
- Raw cement/concrete or washings thereof, asphalt, paint, or other coating material, oil or other petroleum products, or any other substances which could be hazardous to fish and wildlife resources resulting from Project related activities shall be prevented from contaminating the soil and/or entering the waters of the State. These materials, placed within or where they may enter a lake, streambed, or flowing stream by Permittee or any party working under contract or with the permission of Permittee, shall be removed immediately.
- No equipment maintenance shall be done within or near any lake, streambed, or flowing stream where petroleum products or other pollutants from the equipment may enter these areas under any flow.
- No broken concrete, cement, debris, soil, silt, sand, bark, slash, sawdust, rubbish, or washings thereof, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any lake, streambed, or flowing stream.

BIO-10 The following measures shall also be incorporated into the construction documents and specifications, and implemented by the contractor, to avoid potential construction-related impacts to conserved riparian/riverine habitat outside of the approved disturbance limits:

- Construction worker training shall be provided by a qualified biologist at the first on-site construction meeting;
- Project boundaries shall be clearly marked and / or signs shall be erected near the top of slope adjacent to conserved riparian/riverine habitat to prevent accidental/unauthorized intrusions during construction;
- No equipment shall be operated in areas of flowing water; and
- Staging areas for storage of materials and heavy equipment, and for fueling, cleaning, or maintenance of construction vehicles or equipment, shall be prohibited within 20 feet from the top of slope adjacent to conserved riparian/riverine habitat.

BIO-11 The Project shall incorporate special edge treatments along the western segment of the trail between Normandy Road and Interstate 215 designed to minimize edge effects by providing a safe transition between developed areas and conserved riparian/riverine habitat as identified in the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), and which would be compatible with Project operation and the protection and sustainability of conserved areas. The following special edge treatments are applicable to the Project, and shall be implemented:

- The Project is required to stage construction vehicles and equipment outside of the limits of California Department of Fish and Wildlife jurisdictional streambed and riparian/riverine habitat, Public/Quasi Public lands, and MSHCP Conservation Areas to the maximum feasible distance;
- Silt fence shall be installed, demarcating the Project footprint, where the proposed trail will impact Salt Creek, Sun City Channel, Drainage 1, and Drainage 2 to ensure no additional impacts to the jurisdictional features occur;
- Construction-related noise shall not exceed residential noise standards as set forth in the City of Menifee Noise Ordinance; and
- Any manufactured slopes shall be kept within the boundaries of the Project footprint and not encroach into CDFW jurisdictional streambed limits beyond the limits for which permit approval has been obtained from CDFW for the Project.

BIO-12 The Project will result in approximately 0.06 acre of permanent and 0.03 acre of temporary impacts to USACE and RWQCB non-wetland waters, and approximately 1.05 acres of permanent and 0.62 acre of temporary impacts to CDFW jurisdictional streambed. Permanent impacts to regulated jurisdictional waters will be mitigated at a ratio of 3:1 and temporary impacts will be mitigated at a ratio of 2:1, for a total of 4.39 acres of compensatory mitigation to satisfy requirements related to impacts to waters subject to the jurisdiction of the USACE, RWQCB, and CDFW. Compensatory mitigation will be implemented through restoration of a total of 4.39 acres of habitat on Assessor Parcel Number 310-240-012 owned by the RCA. A Habitat Mitigation and Monitoring Plan (HMMP) will be prepared and approved by RCA, RWQCB, and CDFW prior to initiating Project construction – the HMMP will provide detailed direction regarding implementation and maintenance of the referenced compensatory mitigation as agreed upon by RCA, RWQCB, and CDFW.

In addition, the riparian/riverine habitat that would be temporarily impacted by Project construction-related activities would be restored to current conditions as soon as possible after construction is completed. All plant species installed within the temporarily disturbed areas shall include only local California native seeds, and shall be typical of the existing native plant species present in the riparian/riverine areas within and adjacent to the Project site. It is recommended that plant material be installed between October 1 and April 30 to maximize the benefits of the winter rainy season.

BIO-13 A Worker Environmental Awareness Program shall be conducted prior to the start of construction, to educate construction personnel regarding existing on-site and surrounding biological resources, environmental laws and regulations governing those resources that must be complied with, and measures that must be implemented to protect these resources focusing on the avoidance and minimization of impacts to nesting birds during construction.

3.5 Cultural Resources

The information in this section is based on the *Historic Property Survey Report* (HPSR) (Applied EarthWorks, Inc. 2017a) and *Archaeological Survey Report* (ASR) (Applied EarthWorks, Inc. 2017b) prepared for the Project. These documents were prepared to satisfy the requirements of the Caltrans, which for the purposes of this Project is the lead federal agency for compliance with the National Environmental Protection Act and Section 106 of the National Historic Preservation Act. The technical process of discovering historical and archaeological cultural resources in the Project area limits, and analyzing whether or not any Project-related impacts to such resources should be considered an adverse impact, is similar to the federal level of analysis. For this reason, data presented in the HPSR and the ASR can be used to fulfill cultural resource assessment requirements within the CEQA guidelines.

3.5.1 Environmental Setting

The cultural resources study effort included an archaeological records and literature search of previously recorded cultural resources identified within a one-mile radius of the Project Area of Potential Effects (APE), consultation with the Native American Heritage Commission (NAHC) and local Native American groups and individuals, and an intensive-level pedestrian survey of the APE – the archaeological pedestrian survey of the Project APE was completed on March 16 and 17, 2016.

The Project APE was established as areas that may be potentially directly (Area of Direct Impact) and indirectly affected by the proposed undertaking. The APE has a total length of approximately 7.9 miles and includes a 4.3-mile-long western trail segment and a 3.6-mile-long eastern trail segment. The APE ranges in width from 121 to 197 feet and encompasses an area of approximately 180.4 acres. Along much of the alignment, the APE is centered over the trail. However, the APE is expanded in some areas to include the mapped boundary of one archaeological site (CA-RIV-6875) and several construction staging areas. Additionally, in areas where the APE immediately abuts a building, the entire adjacent property is included within the APE. The Area of Direct Impact consists of the approximately 19-foot-wide dual track trail, adjacent cut and fill areas, and staging areas. The Area of Direct Impact has a total length of 7.9 miles with a width ranging from 22 to 38 feet.

The vertical extent of the APE is limited to the area of ground-disturbing activities within the limits of the Area of Direct Impact. Along most of the alignment, excavations for the grading and compaction of the trail are planned to extend no more than 12 inches below the existing grade. In the portion of the corridor near Searl Parkway, where the existing surface is covered in loosely placed gravel, 6 to 8 inches of the existing gravel will first be removed and the ground surface will then be compacted. The area will then be brought back to its original ground elevation by placing standard Class 2 aggregate base in the area of the gravel within the limits of the trail section (19 feet wide). The Class 2 aggregate base will be clean and consist of any combination of broken stone, crushed gravel, natural rough-surfaced gravel, sand, and/or processed reclaimed asphalt concrete, Portland cement concrete (PCC), lean concrete base (LCB), or cement treated base (CTB). A hot-mixed asphalt will be placed over the new base and existing soils. Minimal ground disturbance is anticipated for those portions of the trail that intersect the two archaeological sites. In these areas, the trail will be constructed above the existing grade; the ground surface will be rolled for compaction and asphalt concrete will be placed over the existing soils to the proposed grade line. In addition, a curb ramp will be constructed at the northeast corner of the Domenigoni Parkway and Searl Parkway intersection and will involve the excavation of an area approximately six inches in depth.

A small number of Project elements would extend beyond the 12-inch vertical APE. Specifically, an approximately 2-foot-diameter area located at the northeast corner of the Domenigoni Parkway and Searl Parkway intersection will be excavated to a depth of approximately 4 feet to install a conduit between the existing signal pull box and the new pedestrian push button pole and sign post. The Project also includes the extension of an existing box culvert east of the Domenigoni Parkway and Searl Parkway intersection; these drainage improvements will require the excavation of an area approximately 10 to 12 feet in length and 3 feet in depth. The Project proposes to construct traffic signal pole and pedestrian push button pole foundations for the trail crossings at Normandy, Murrieta, and Bradley roads in Menifee. For each traffic signal pole foundation, a 3- to 6-foot-diameter area will be excavated to an anticipated maximum depth of 15 feet, depending on the exact pole used for the signal. For the traffic signal poles, conduit will be installed under the existing street at a trench depth of no more than 5 feet. The installation of pedestrian push button pole foundations will involve the excavation of a 1.5 to 2.0-foot-diameter area to a depth of 4 feet. Trail crossings at Normandy Road, Murrieta Road, and Bradley Road will also require cuts up to 4 feet in depth in the existing maintenance road berms with fills of up to 5 feet in depth placed against these same berms. Finally, a service cabinet for wall pack lighting under the I-215 bridge will need to be installed. Two possible location options have been identified for the installation of the service cabinet.

Option 1 consists of placing a pole mounted transformer and possibly a pull box or vault just west of the I-215 bridge to connect the new service/meter cabinet to an existing pole. Option 2 requires the placement of conduit under Antelope Road, east of the I-215 bridge, to connect to an existing vault to the new service/meter cabinet. Both options will have conduit installed at a trench depth of no more than 5 feet.

A variety of sources were consulted as part of the Project's cultural resource investigation, including the cultural resource records and literature search at the Eastern Information Center (EIC) at the University of California, Riverside. Additional sources consulted include the following:

- National Register of Historic Places (NRHP)
- California Register of Historical Resources (CRHR)
- California Historical Landmarks
- California Points of Historical Interest
- Riverside County Historical Landmarks
- Historical maps
- Records from the Office of Historic Preservation (OHP) Archaeological Determinations of Eligibility; and the OHP Directory of Properties in the Historic Property Data File
- NAHC and Native American individuals and organizations

The cultural resource literature and records search of a one-mile radius surrounding the Project APE of the eastern and western trail segments was conducted at the EIC on January 11, 2016. Results of that search indicate that no less than 160 cultural resource studies have been conducted previously within one mile of the Project APE. The literature and records search also indicates that 142 cultural resources have been documented within the one-mile radius surrounding the eastern and western trail segments. These resources include 92 prehistoric sites, 13 multicomponent sites containing both prehistoric and historical constituents, 14 historical archaeological resources, two historic-period built-environment resources, and 21 isolated artifacts (18 isolated prehistoric artifacts and three localities of isolated historical artifacts).

Of the 104 prehistoric sites and/or sites containing prehistoric components, many (approximately 50 sites) are bedrock milling locations containing one or more milling slicks and/or mortars cups that lack any associated artifacts or other cultural features. These are sites where Native Americans processed hard seeds, nuts, and other vegetal foods as well as animals. Eighteen other sites are bedrock milling locations associated with sparse lithic scatters (flaked and/or ground stone tools and/or lithic debitage). Seventeen sites appear to represent prehistoric residential locations where a variety of activities were conducted; and variously include bedrock milling locations, scatters of lithic (both flaked and ground) and/or ceramic artifacts, rock art locations (pictographs and/or petroglyphs), localized areas of midden, and occasionally evidence of human burials (inhumation and/or cremation). Other prehistoric site types include 10 lithic scatters with flaked and/or ground stone tools and/or lithic debitage, and four rock art sites (two of which also contain bedrock milling features). Based on the lack of information, five prehistoric sites could not be categorized; three of these appear to have been destroyed by development since being initially recorded. The presence of so many prehistoric resources in the vicinity attests to the extensive use and settlement of the surrounding area by Native Americans for thousands of years.

The 14 historical archaeological resources consist primarily of refuse deposits (cans, fragments of ceramics and/or glass and other miscellaneous materials) dating primarily from the early-to-middle 1900s (seven sites). Other historical archaeological resources include: the remains of ranch/farmstead complexes (two); a rock quarry; segments of the San Jacinto and Pleasant Valley Company earthen canal constructed in 1893; a late 1800s to early 1900s family cemetery plot; one dam; and one cement block wall. The historical constituents at the 13 multicomponent sites consist of scatters of historical refuse like those described above, occasionally associated with historical structure foundations (two locations). Historical built-environment resources include a ranch-style bungalow and detached garage constructed in 1945.

Additionally, the "Menifee School" constructed in 1890 is listed as a resource within the one-mile radius of the western trail segment; however, this structure was demolished sometime after 1967.

Isolated prehistoric artifacts include: five metate/milling slabs, or fragments thereof; three mano/handstones; two projectile points; two flake cores; one pestle; and four localities of lithic debitage (five items total). Historical isolated artifacts include fragments of glass containers (three items total).

Two archaeological sites, CA-RIV-1162/H (P-33-001162) and CA-RIV-6875 (P-33-011547), are located within the APE of the eastern and western trail segments, respectively. CA-RIV-1162/H is a large prehistoric residential location with occupations dating from approximately 4200 years Before Present (B.P.) through the Late Prehistoric period. The site's historical component consists of a low-density surface scatter of wood, metal, and glass fragments dating from approximately the 1890s to the 1930s, representing the casual disposal of household and farm-related refuse (Foster et al. 1994:23). Based on the data gathered during Phase II testing of the prehistoric component, CA-RIV-1162/H was recommended as an important and significant resource per criteria set forth in the CEQA Statutes and Guidelines and 36 CFR § 60.4 of the federal regulations, respectively. In a letter from the State of California OHP dated 28 July 1993, the OHP concurred with these recommendations. Phase II testing of the site's historical component determined that the historical component was a non-contributing element of the site's significance (Foster et al. 1994:23).

CA-RIV-6875 is a large, complex lithic scatter and residential location that appears to have been occupied between approximately 8407 to 6846 years B.P., and then again at approximately 3716 years B.P. (Smith et al. 2007:8.4-1). Similarly, Phase II testing determined that CA-RIV-6875 also meets the requirements for listing on the CRHR per criteria set forth in the CEQA Statutes and Guidelines (Smith et al. 2007:1.0-1; 5.7-2).

A third archaeological resource, which consists of two isolated prehistoric flakes in a redeposited context (P-33-008819), was located along the southern edge of the APE of the western trail segment as a result of previously conducted surveys not related to the Project addressed herein.

No evidence of the two previously documented sites, CA-RIV-1162/H and CA-RIV-6875, or the isolated prehistoric flakes (P-33-008819), was observed during the intensive pedestrian survey. In addition, no newly identified prehistoric and/or historic-period cultural resources were identified in the Project APE during the survey. Further, all portions of the APE that were surveyed were found to be disturbed extensively by previous road construction (portions of the eastern segment along State Street and Domenigoni Parkway), plowing and disking resulting from agricultural endeavors (extreme northern end of the eastern segment along Salt Creek Channel), construction and grading of the dirt maintenance road that parallels the northern side of the Salt Creek Channel within the western trail segment, and excavation and grading for a proposed housing tract within the western trail segment in the area mapped as CA-RIV-6875.

3.5.2 Impact Assessment

Would the Project:

- a) **Cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations Section 15064.5?**

Less Than Significant Impact with Mitigation Incorporated. Discussion regarding the Project's potential to impact resources identified within the APE is provided below for each respective previously identified resource.

CA-RIV-1162/H: Although portions of CA-RIV-1162/H are visible near the Project area limits, no site elements were detected in the alignment of the trail during the pedestrian survey. Also, and as detailed in the HPSR/ASR (Applied EarthWorks, Inc. 2017a), a previous Phase II investigation (archaeological testing) conducted at the site found no cultural deposits and/or features within the portion of the Project that transects the southern portion of the site.

The ASR (Applied EarthWorks, Inc. 2017b) concluded that due to the limited data potential of the southern portion of this site within and surrounding the Project, further damage to the site is unlikely to occur during construction of the Project. Within the recorded location of CA-RIV-1162/H, the proposed trail would be constructed on top of the existing graded dirt parkway. Ground disturbance associated with the construction of the trail would include the removal of the existing gravel to a depth of 6 to 8 inches below the current ground surface, roller compaction of the remaining underlying soils, placement of a standard Class 2 aggregate base which will be clean and consist of any combination of broken stone, crushed gravel, natural rough-surfaced gravel, sand, or processed reclaimed asphalt concrete, PCC, LCB, or CTB, in the area of the gravel within the limits of the trail section (19 feet wide), and placement of hot-mixed asphalt over the existing sediments. Additional work within the site boundary includes the excavation of an approximately two-foot diameter area to a maximum depth of four feet to install a conduit between the existing signal pull box and the new pedestrian push button pole and sign post at the northeast corner of the Domenigoni Parkway and Searl Parkway intersection. A curb ramp would also be constructed at this location and would involve the excavation of an area approximately six inches in depth.

As also noted in the ASR (Applied EarthWorks, Inc. 2017b), an examination of as-built drawings of Domenigoni Parkway revealed that the roadway and this portion of the Project are situated on imported fill sediments that extend 10 feet or more above the elevation of the original ground surface. Project construction within this portion of the Project area would not result in ground disturbance to intact native sediments. Therefore, and with implementation of mitigation measure CUL-1, the Project is not expected to result in a significant impact to this cultural resource.

CA-RIV-6875: Within the western trail segment immediately north of Newport Road, the trail would be constructed on top of the existing graded dirt maintenance road within the known boundary of this cultural resource site. More specifically, within the CA-RIV-6875 boundary, disturbances associated with the construction of the trail would include rolling the existing ground surface for compaction and placement of asphalt concrete over the existing soils to the proposed grade line.

As noted in the ASR (Applied EarthWorks, Inc. 2017b), the entire site area north of the proposed trail centerline has been extensively disturbed by excavation and grading activities associated with the Audie Murphy Ranch project. The absence of archaeological remains within the mapped boundary of CA-RIV-6875 suggests that the entire area of the site was over-excavated during grading and then subsequently filled (possibly with imported sediments) to create the leveled, terraced area that is currently evident. Given the limited potential ground-disturbing impacts during construction, and with implementation of mitigation measure CUL-1, the Project is not expected to result in a significant impact to this cultural resource.

P-33-008819: As described in the ASR (Applied EarthWorks, Inc. 2017b), no evidence of the previously documented isolated prehistoric flakes (P-33-008819) were observed during the intensive pedestrian survey conducted for the Project. Therefore, and with implementation of mitigation measure CUL-1, the Project is not expected to result in a significant impact to this cultural resource.

Although the Project is not anticipated to impact cultural resources, there is the possibility that buried cultural deposits—whether associated with CA-RIV-1162/H or CA-RIV-6875, or with some as-yet unknown archaeological site—may be discovered during Project-related construction activities. However,

with implementation of mitigation measure CUL-1 impacts to cultural resources would be less than significant.

b) Cause a substantial adverse change in the significance of an archaeological resource as defined in California Code of Regulations Section 15064.5?

Less Than Significant Impact with Mitigation Incorporated. Refer to Checklist Response 3.5.2 (a) above. With implementation of mitigation measure CUL-1, impacts to cultural resources would be less than significant.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

Less Than Significant Impact. According to the *City of Hemet's General Plan EIR* (Hemet 2012), Geologic mapping indicates that the northern and eastern portion of the Hemet planning area is located primarily on surface exposures of Holocene alluvial valley deposits. However, these young alluvial sediments overlie older Pleistocene sediments present in the subsurface. These older Pleistocene sediments are also present in the surface in the southern (generally south of Johnston Avenue), and also in the western (generally west of Warren Road) portion of the planning area. Surface exposure of older Pleistocene sediments generally occurs on the lower slopes of hills or mountains. These older Pleistocene alluvial deposits have high potential to contain paleontological resources, and so are considered to have high paleontological sensitivity. Pleistocene sediments in the Diamond and Domenigoni Valleys yielded tens of thousands of Pleistocene age vertebrate fossils. Older Pleistocene alluvial sediments elsewhere throughout Riverside and inland San Bernardino Counties and the Inland Empire have been reported to yield significant fossils of plants and extinct animals. Fossils recovered from these Pleistocene sediments represent extinct taxa including mammoths, mastodons, ground sloths, dire wolves, short-faced bears, saber-toothed cats, large and small horses, large and small camels, and bison.

According to the *City of Meniffee General Plan* (Meniffee 2013), the City of Meniffee has been inventoried for geological formations known to potentially contain paleontological resources. Paleontological resources are the fossilized biotic remains of ancient environments. They are valuable for the information they yield about the history of the earth and its past ecological settings. Except for the western border of the City, Meniffee's hills generally lack potential for significant fossil resources. These hills, which make up the western boundary of the City, incorporate low-lying areas and have undetermined potential to contain fossil resources. On the other hand, the City's alluvial plains and sediments flanking the base of the hills throughout the City are ranked as highly sensitive for finding significant fossils. Past recoveries include fossils from the Pleistocene period, including mammoths, mastodons, ground sloths, dire wolves, short-faced bears, saber-toothed cats, horses, camels, and bison.

Given the extensive ground disturbance within the Project APE as described above, any superficial paleontological resources that could have existed at one time have likely been previously unearthed by past activities. The Project involves construction of a dual track trail consisting of an approximate 12- to 14-foot wide Class I paved bike path adjacent to an approximate five-foot wide natural surface pedestrian path. The maximum depth of excavation would be approximately one foot along the trail, with depths up to four feet at localized areas of grading, and 15 feet for traffic signal pole foundations.

While the City of Meniffee and City of Hemet contain soil deposits that have the potential to contain paleontological resources, it is not anticipated that Project grading associated with construction would have the potential to result in an impact to paleontological resources. Therefore, a less than significant impact would occur and no mitigation would be required.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact with Mitigation Incorporated. The Project site does not include a known formal cemetery and is not adjacent to any known formal cemeteries. The Project site and vicinity have been surveyed for archaeological resources and no human remains interred outside formal cemeteries were detected during the survey. Given the disturbed nature of the Project site, it is unlikely Project construction would disturb any buried human remains. However, if human remains are discovered during construction, State Health and Safety Code Section 7050.5 (b) states that further disturbances and activities must cease in the area of the suspected human remains, and the County Coroner contacted and permitted to examine the remains. If the Coroner determines that the remains are of Native American origin, the Coroner must then notify the NAHC of the existence of the find within 24 hours. Pursuant to California Public Resource Code (PRC) Section 5097.98, the NAHC would then notify the Most Likely Descendant (MLD) of the discovery. The MLD has 48 hours of being granted access to the site to complete their inspection and make recommendations or preferences for treatment. The disposition of the remains shall be overseen by the MLD to determine the most appropriate means of treating the human remains and any associated grave artifacts.

The specific locations of Native American burials and reburials would be proprietary and not disclosed to the general public. The locations would be documented by the consulting archaeologist in conjunction with the various stakeholders and a report of findings would be filed with the EIC.

According to California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052) determined in consultation between the project proponent and the MLD. In the event that the project proponent and the MLD are in disagreement regarding the disposition of the remains, State law would apply and the median and decision process would occur with the NAHC (see PRC Sections 5097.98(e) and 5097.94(k)).

In complying with the above-mentioned California regulations (refer to mitigation measure CUL-2); should human remains be unearthed during project construction, any potential impacts would be addressed.

3.5.3 Mitigation Measures

CUL-1 If archaeological resources are inadvertently encountered during construction, the County-appointed archaeological and/or Tribal monitor shall:

- Halt all work within a 60-foot radius and shall immediately inform the Resident Engineer.
- Following notification, the archaeologist will make a preliminary assessment of the discovery to determine whether the find is an isolated artifact or recent deposit. If the find is determined to be isolated or recent, construction will be allowed to resume.
- Should the monitor(s) determine the discovery is potentially significant, the monitor(s) will evaluate the discovery and if necessary, formulate appropriate mitigation measures after consultation with the County.
 - If the discovery contains Native American archaeological resources, all Native American tribes and individuals who requested to be contacted, shall be contacted and informed of the discovery. The archaeological resource discovery, including human remains, shall not be disturbed (i.e., photographed, videoed, or moved) until fully assessed by the archaeological monitor and/or tribal monitor.

Additionally, if prehistoric or historic-era archaeological resources are encountered anywhere during project construction when no archaeologist is present, construction personnel encountering the resource must halt within a 60-foot radius until the monitor(s) can evaluate the nature and significance of the find and formulate appropriate evaluation and/or mitigation measures.

Should the deposit contain Native American resources, all interested Native American parties must be first consulted as to how the deposit and any associated artifacts and features should be treated.

Once the County archaeologist and/or tribal monitor have determined that the archaeological deposit has been sufficiently documented, recovered/removed, and concluded that further construction activities would not impact additional archaeological deposits in the immediate area, construction activity can resume in that area.

- CUL-2** If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall then make recommendations within 48 hours and engage in consultation with the property owner concerning the treatment of the remains as provided in Public Resource Code Section 5097.98.

3.6 Geology and Soils

This section evaluates potential geologic and soils hazards associated with the Project including fault rupture, ground shaking, liquefaction, expansive soils, and landform/landslide. A related issue, erosion, is addressed in Checklist Response 3.9, Hydrology and Water Quality, of this Initial Study. This section is based on information and findings from the Phase I and from the City of Menifee General Plan (2013a) and City of Hemet General Plan (2012a).

3.6.1 Environmental Setting

Geology

Based on the Menifee General Plan Figure S-4, Geologic Map, the western segment is underlain by young superficial deposits (Young Alluvial Valley and Channel [Qya]), and old superficial deposits (Old Alluvial Fan Deposits [Qof] and Very Old Alluvial Fan Deposits [Qvof]). Based on the City of Hemet General Plan 2030 EIR Section 4.6, Geology, Soils, Mineral and Paleontological Resources, the San Jacinto Valley floor (which includes the Eastern Segment) is underlain by clay, silt, and fine-grained sand deposits that are sometimes soft, expansive, and prone to consolidation under building loads.

Site Topography

Based on the USGS Romoland, California Quadrangle, dated 2015, the western segment is located on vacant land within a developed area of the City of Menifee. On-site topography is relatively flat, ranging from 1,405 to 1,434 feet mean sea level (msl). Salt Creek travels parallel and south of the Project site. Based on the USGS Hemet, California and Winchester, California Quadrangles, both dated 2015, the eastern segment is located within vacant land. On site topography gently slopes to the northwest, with elevations around 1,540 to 1,595 feet above msl. Urban development is visible to the north of the Project site. Transportation uses are noted at Domenigoni Parkway and State Street. Other surrounding uses

consist primarily of vacant land uses. Diamond Valley Lake is noted to the south of the Project site. No on-site pits, ponds, or lagoons are located on-site.

Soil

The USDA Soil Conservation Service Soil Survey Maps were reviewed to characterize soils within the Project area (Michael Baker International 2016b), as described below for each respective trail segment.

Western Segment

Arbuckle loam, 2 to 8 percent slopes: The landform for this type of soil is alluvial fans and the parent material is alluvium derived from metasedimentary rock. The Arbuckle loam, 2 to 8 percent slopes, is well drained with more than 80 inches depth to the water table. Runoff class is high. No flooding or ponding frequencies are reported for this soil.

Chino silt loam, drained: The landform for this type of soil is flood plains and the parent material is alluvium derived from granite. The Chino silt loam, drained, is somewhat poorly drained with the depth to the water table at 0 inches. The runoff class is medium. Rare flooding and no ponding frequency are reported for this soil.

Chino silt loam, drained, saline-alkali: The landform for this soil is flood plains and the parent material is alluvium derived from granite. The Chino silt loam, drained, saline-alkali is somewhat poorly drained with the depth to water table at 0 inches. The runoff class is medium. Rare flooding and no ponding frequency are reported for this soil.

Domino silt loam, saline-alkali: The landform for this type of soil is alluvial fans and the parent material is alluvium derived from granite. The Domino silt loam, saline-alkali is moderately well drained, with more than 80 inches depth to the water table. The runoff class is high. Rare flooding and no ponding frequency are reported for this soil.

Monserate sandy loam, 0 to 5 percent slopes: The landform for this type of soil is alluvial fans and the parent material is alluvium derived from granite. The Monserate sandy loam, 0 to 5 percent slopes is well drained, with more than 80 inches depth to the water table. The runoff class is medium. No flooding or ponding frequencies are reported for this soil.

Monserate sandy loam, 5 to 8 percent slopes: The landform for this type of soil is alluvial fans and the parent material is alluvium derived from granite. The Monserate sandy loam, 5 to 8 percent slopes is well drained, with more than 80 inches depth to the water table. The runoff class is high. No flooding or ponding frequencies are reported for this soil.

Willows silty clay: The landform for this type of soil is basin floors and the parent material is alluvium derived from mixed sources. The Willows silty clay is poorly drained, with a depth of 0 inches to the water table. The runoff class is very high. Rare flooding and no ponding are reported for this soil.

Willows silty clay, strongly saline-alkali: The landform for this type of soil is basin floors and the parent material is alluvium derived from mixed sources. The Willows silty clay, strongly saline-alkali is poorly drained, with the depth to water table at 0 inches. The runoff class is very high. Rare flooding and no ponding are reported for this soil.

Willows silty clay, strongly saline-alkali: The landform for this type of soil is basin floors and the parent material is alluvium derived from mixed sources. The Willows silty clay, strongly saline-alkali is poorly drained, with the depth to water table at 0 inches. The runoff class is very high. Rare flooding and no ponding are reported for this soil.

Eastern Segment

Cieneba rocky sandy loam, 8 to 15 percent slopes, eroded: The landform for this type of soil is hills and the parent material is residuum weathered from igneous rock. The Cieneba rocky sandy loam is somewhat excessively drained with more than 80 inches depth to the water table. Runoff class is low. No flooding and ponding frequencies are reported for this soil.

Domino silt loam, saline-alkali: The landform for this type of soil is alluvial fans and the parent material is alluvium derived from granite. The Domino silt loam, saline-alkali is moderately well drained, with more than 80 inches depth to the water table. The runoff class is high. Rare flooding and no ponding frequencies are reported for this soil.

Domino silt loam, strongly saline-alkali: The landform for this type of soil is alluvial fans and the parent material is alluvium derived from granite. The Domino silt loam, strongly saline-alkali is moderately well drained, with more than 80 inches depth to the water table. The runoff class is high. Rare flooding and no ponding frequencies are reported for this soil.

Escondido fine sandy loam, 8 to 15 percent slopes, eroded: The landform for this type of soil is hills and the parent material is residuum weathered from metamorphic rock. Escondido fine sandy loam, 8 to 15 percent slopes, eroded is well drained, with more than 80 inches depth to the water table. The runoff class is medium. No flooding and ponding frequencies are reported for this soil.

Fallbrook sandy loam, 8 to 15 percent slopes, eroded: The landform for this type of soil is hills and the parent material is residuum weathered from granodiorite and/or residuum weathered from tonalite. Fallbrook sandy loam, 8 to 15 percent slopes, eroded is well drained with more than 80 inches depth to the water table. The runoff class is medium. No flooding and ponding frequencies are reported for this soil.

Fallbrook rocky sandy loam, shallow, 8 to 15 percent slopes, eroded: The landform for this type of soil is hills and the parent material is residuum weathered from granodiorite and/or residuum weathered from tonalite. Fallbrook rocky sandy loam, shallow, 8 to 15 percent slopes, eroded, is well drained with more than 80 inches depth to the water table. The runoff class is medium. No flooding and ponding frequencies are reported for this soil.

Fallbrook rocky sandy loam, shallow, 8 to 15 percent slopes, eroded: The landform for this type of soil is hills and the parent material is residuum weathered from granodiorite and/or residuum weathered from tonalite. Fallbrook rocky sandy loam, shallow, 8 to 15 percent slopes, eroded, is well drained with more than 80 inches depth to the water table. The runoff class is medium. No flooding and ponding frequencies are reported for this soil.

Friant rocky fine sandy loam, eroded: The landform for this type of soil is hills and the parent material is residuum weathered from mica schist. Friant rocky fine sandy loam, eroded, is well drained with more than 80 inches depth to the water table. The runoff class is low. No flooding and ponding frequencies are reported for this soil.

Gorgonio loamy sand, 0 to 8 percent slopes: The landform for this type of soil is alluvial fans and the parent material is alluvium derived from granite. Gorgonio loamy sand, 0 to 8 percent slopes is somewhat excessively drained with the depth to water table more than 80 inches. The runoff class is negligible. Rare flooding and no ponding are reported for this soil.

Greenfield sandy loam, 0 to 2 percent slopes: The landform for this type of soil is alluvial fans and terraces, and the parent material is alluvium derived from granite. Greenfield sandy loam, 0 to 2 percent

slopes, eroded, is well drained with the depth to water table more than 80 inches. The runoff class is very low. Rare flooding and no ponding are reported for this soil.

Greenfield sandy loam, 0 to 2 percent slopes: The landform for this type of soil is alluvial fans and terraces, and the parent material is alluvium derived from granite. Greenfield sandy loam, 0 to 2 percent slopes, eroded, is well drained with the depth to water table more than 80 inches. The runoff class is very low. Rare flooding and no ponding are reported for this soil.

Greenfield sandy loam, 2 to 8 percent slopes, eroded: The landform for this type of soil is alluvial fans and terraces, and the parent material is alluvium derived from granite. Greenfield sandy loam, 2 to 8 percent slopes, eroded, is well drained with the depth to water table at more than 80 inches. The runoff class is low. No flooding or ponding are reported for this soil.

Hanford fine sandy loam, 0 to 2 percent slopes: The landform for this type of soil is alluvial fans and the parent material is alluvium derived from granite. Hanford fine sandy loam, 0 to 2 percent slopes, is well drained with the depth to water table more than 80 inches. The runoff class is very low. Rare flooding and no ponding are reported for this soil.

Hanford coarse sandy loam 2 to 8 percent slopes: The landform for this type of soil is alluvial fans, and the parent material is alluvium derived from granite. Hanford coarse sandy loam 2 to 8 percent slopes is well drained with the depth to water table more than 80 inches. The runoff class is low. No flooding or ponding are reported for this soil.

Pachappa fine sandy loam, 0 to 2 percent slopes: The landform for this type of soil is alluvial fans and the parent material is alluvium derived from granite. Pachappa fine sandy loam, 0 to 2 percent slopes, is well drained with the depth to the water table more than 80 inches. The runoff class is low. Rare flooding and no ponding are reported for this soil.

Traver loamy fine sand, eroded: The landform for this type of soil is valley floors and the parent material is alluvium derived from granite. Traver loamy fine sand, eroded is moderately well drained with the depth to the water table more than 80 inches. The runoff class is low. Rare flooding and no ponding are reported for this soil.

Traver fine sandy loam, saline-alkali: The landform for this type of soil is valley floors and the parent material is alluvium derived from granite. Traver fine sandy loam, saline-alkali is moderately well drained with the depth to the water table more than 80 inches. The runoff class is low. Rare flooding and no ponding are reported for this soil.

Vista coarse sandy loam, 2 to 8 percent slopes: The landform for this type of soil is hills and the parent material is residuum weathered from granite and/or residuum weathered from granodiorite. Vista coarse sandy loam, 2 to 8 percent slopes, is well drained with the depth to the water table more than 80 inches. The runoff class is low. No flooding or ponding are reported for this soil.

Vista coarse sandy loam, 2 to 8 percent slopes: The landform for this type of soil is hills and the parent material is residuum weathered from granite and/or residuum weathered from granodiorite. Vista coarse sandy loam, 2 to 8 percent slopes, is well drained with the depth to the water table more than 80 inches. The runoff class is low. No flooding or ponding are reported for this soil.

Waukena fine sandy loam, saline-alkali: The landform for this type of soil is basin floor and the parent material is alluvium derived from granite. Waukena fine sandy loam is moderately well drained with the depth to the water table more than 80 inches. The runoff class is high. Rare flooding and no ponding are reported for this soil.

3.6.2 Impact Assessment

Would the Project:

- a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
- i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. The Alquist-Priolo Special Studies Zones Act was signed into law in 1972 (in 1994 it was renamed the Alquist-Priolo Earthquake Fault Zoning Act). The primary purpose of the Act is to mitigate the hazard of fault rupture by prohibiting the construction of structures for human occupancy where traces of an active fault are evident (Earth Consultants International 2010). According to the *City of Menifee General Plan*, Exhibit S-1, Fault Map, the western segment portion of the Project site is not located within a designated Alquist-Priolo Earthquake Fault Zone (Menifee 2013a). According to *City of Hemet General Plan*, Figure 6.1 Seismic Hazards, the eastern segment of the Project site is not located within a designated Alquist-Priolo Earthquake Fault Zone (Hemet 2012a). The probability of primary surface rupture is considered low. Implementation of the Project would not expose people or structures to potential substantial adverse effects involving rupture of a known earthquake fault. Also, as indicated by the City of Menifee and City of Hemet General Plans there are no active faults that traverse the Project site (Menifee 2013a and Hemet 2012a). Therefore, no impact related to surface rupture is expected to occur and no mitigation would be required.

- ii. Strong seismic ground shaking?

Less Than Significant Impact. The Project site, as with the entire Southern California region, is subject to secondary effects from earthquakes. The two closest zoned faults to the City Menifee are the San Jacinto fault to the east, and the Elsinore fault to the west (Earth Consultants International 2010). The City of Hemet is located on a portion of the San Jacinto Fault Zone, considered one of the region's most active fault zones, and could be affected by the San Andreas Fault and the Elsinore Fault (Hemet 2012a). While the Project area would potentially be subject to seismic ground shaking due to earthquakes, the Project does not propose construction of habitable structures of any kind. Ground-shaking hazards caused by earthquakes along regionally active faults do exist. The Project would be designed and constructed to meet current City of Menifee and City of Hemet Building Codes and would comply with seismic safety provisions of the most recent California Building Code (CBC). The CBC contains provisions for earthquake safety based on factors including occupancy type, the types of soil and rock on-site, and the strength of ground shaking with specified probability of occurring at a site. Because the CBC ensures that the Project would be designed and constructed based on site-specific parameters and current engineering practices, Project impacts related to seismic ground shaking would be less than significant and no mitigation would be required.

- iii. Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction is a geologic process that causes various types of ground failure. It typically occurs within the upper 50 feet of the surface, in saturated, loose, fine- to medium-grained sandy to silty soils. Earthquake shaking suddenly increases pressure in the water that fills the pores between soil grains, causing the soil to have a total or substantial loss of shear strength, and behave like a liquid or semi-viscous substance (Earth Consultants International 2010). According to the *City of Menifee General Plan*, Figure S-3, Liquefaction and Landslides, the western segment of the

Project is located within an area where local geological and groundwater conditions suggest a potential for liquefaction. According to the *City of Hemet General Plan*, Figure 6-1, Seismic Hazards, the eastern segment of the Project is located in areas identified as low to very high liquefaction susceptibility. Liquefaction would be addressed during final engineering design for the Project and all earthwork would be performed in accordance with the requirements of applicable State and local regulations. Therefore, impacts associated with seismic-related ground failure, including liquefaction, would be less than significant and no mitigation would be required.

iv) Landslides?

No Impact. Landslides and other slope failures are secondary seismic effects that are common during or soon after earthquakes. Areas that are most susceptible to earthquake induced landslides are steep slopes underlain by loose, weak soils, and areas on or adjacent to existing landslide deposits. The Project site is located in the seismically active southern California region subject to strong ground shaking; however, the Project site is located in a relatively flat developed area that does not contain large slopes, and development of the Project would not generate large slopes on the Project site. In addition, the *City of Menifee General Plan* Figure S-3 indicates that the Project is not located in an area designated as having the potential for earthquake-induced landslides. Further, the *City of Hemet General Plan Environmental Impact Report* indicates that areas considered most susceptible to earthquake-induced landslide are located on moderately to steeply inclined slopes and on or adjacent to existing landslide deposits, especially if the underlying materials consist of loose soil or weak, fractured bedrock. Such areas generally include hilly areas in West Hemet, Park Hill, and the southeastern portion of the planning area; the Project site is not located in these areas. Therefore, implementation of the Project would not expose people or structures to potentially substantial adverse effects related to landslides. No significant impacts would result and no mitigation measures would be required.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. The Project would result in an increase in impervious surface compared to the current unpaved condition; there would be minimal exposed soil following completion of the Project and the potential for erosion during operation is remote. During construction activities, grading would displace soils and temporarily increase the potential for soils to be subject to wind and water erosion, similar to existing conditions. Although the impacts of the construction phase would be short-term, the contractor would be required to comply with standard engineering practices for erosion control. The implementation of the Project SWPPP (refer to BIO-9) would further reduce soil erosion and topsoil impacts to less than significant levels.

Refer to Checklist Response 3.9.2 (a) for further discussion regarding the Project's potential impacts related to short-term soil erosion and runoff. Compliance with existing State, regional and local regulations, NPDES permit requirements, Project-specific BMPs identified in the SWPPP, and ongoing maintenance and monitoring of construction and subsequent post-construction phase BMPs, would ensure that Project impacts with respect to topsoil loss and erosion would be less than significant and no mitigation would be required.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact. As indicated in Checklist Response 3.6.2 (a.iii) above, the Project site is located in areas designated from low to very high liquefaction susceptibility; therefore the potential for liquefaction induced lateral spreading also ranges from low to high. As discussed in Checklist Response 3.6.2 (a.iv), the Project site is not located in an area subject to on- or off-site landslides. Seismic

ground-shaking impacts would be less than significant when current CBC standards, as well as standard engineering practices, are utilized in design. No significant geologic hazards would occur relative to landslides, lateral spreading, subsidence, liquefaction, or collapse and no further mitigation would be required.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less Than Significant Impact. According to the *City of Menifee General Plan*, soils in the valley and canyon areas and weathered old alluvial fan deposits may be expansive. According to the *City of Hemet General Plan* Fine-grained native soils, bedrock, and artificial fill soils, consisting predominantly of silt and clay, may contain clay minerals that are susceptible to expansion upon addition of water and contraction under drying conditions. Certain clay minerals with high plasticity have higher potential for expansion. These materials can affect performance of foundations, slabs, and exterior property improvements. Most soil associations in the City of Hemet have low shrink-swell potential, but expansive materials may exist in portions of the City. Effects can be mitigated, or the expansive soil can be replaced with different soil that is not expansive. Special engineering designs are used effectively to alleviate problems caused by expansive soils. These designs may include, but are not limited to, the use of reinforcing steel in foundations, drainage control devices, over-excavation, and backfilling with non-expansive soils among others. Expansive soils can be alleviated through proper site investigations, soils testing, foundation design, and quality assurance during grading operations as required by local Building Codes. The Project would adhere to standard engineering practices and criteria relative to seismic and geologic hazards and, therefore, impacts related to expansive soils would be less than significant and no mitigation would be required.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The Project does not include any housing or other uses that would require the development of either septic tanks or alternative wastewater systems. No impacts would occur and no mitigation would be required.

3.6.3 Mitigation Measures

No mitigation measures are proposed.

3.7 Greenhouse Gas Emissions

Information in this section is based on the *Salt Creek Trail Project – Construction Air Quality/Greenhouse Gas Emissions Technical Memorandum* prepared by Michael Baker International (2016a). The technical memorandum contains an overview of the regulations that apply to the Project; includes an analysis of existing air quality in the vicinity of the Project site; analyzes the Project's potential short- and long-term air quality and greenhouse gas (GHG) impacts.

3.7.1 Environmental Setting

Greenhouse Gas Emissions

California is a substantial contributor of global GHG, emitting over 400 million tons of carbon dioxide (CO₂) per year. Climate studies indicate that California is likely to see an increase of three to four degrees Fahrenheit (°F) over the next century. Methane is also an important GHG that potentially contributes to global climate change. GHGs are global in their effect, which is to increase the earth's ability to absorb heat in the atmosphere. As primary GHGs have a long lifetime in the atmosphere, accumulate over time,

and are generally well-mixed, their impact on the atmosphere is mostly independent of the point of emission.

The impact of anthropogenic activities on global climate change is apparent in the observational record. Air trapped by ice has been extracted from core samples taken from polar ice sheets to determine the global atmospheric variation of CO₂, methane (CH₄), and nitrous oxide (N₂O) from before the start of industrialization (approximately 1750), to over 650,000 years ago. For that period, it was found that CO₂ concentrations ranged from 180 ppm to 300 ppm. For the period from approximately 1750 to the present, global CO₂ concentrations increased from a pre-industrialization period concentration of 280 ppm to 379 ppm in 2005, with the 2005 value far exceeding the upper end of the pre-industrial period range.

Regulations and Significance Criteria

The Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. It concluded that a stabilization of GHGs at 400 to 450 ppm carbon dioxide equivalent (CO₂eq)³ concentration is required to keep global mean warming below two degrees Celsius (°C), which in turn is assumed to be necessary to avoid dangerous climate change.

Executive Order (EO) S-3-05 was issued in June 2005, which established the following GHG emission reduction targets:

- 2010: Reduce GHG emissions to 2000 levels;
- 2020: Reduce GHG emissions to 1990 levels; and
- 2050: Reduce GHG emissions to 80 percent below 1990 levels.

Additionally, issued in April 2015, Executive Order B-30-15 requires statewide GHG emissions to be reduced 40 percent below 1990 levels by 2030. Assembly Bill (AB) 32 requires that the CARB determine what the statewide GHG emissions level was in 1990, and approve a statewide GHG emissions limit that is equivalent to that level, to be achieved by 2020. CARB has approved a 2020 emissions limit of 427 million metric tons of CO₂eq.

Due to the nature of global climate change, it is not anticipated that any single development project would have a substantial effect on global climate change. In actuality, GHG emissions from the Project would combine with emissions emitted across California, the United States, and the world to cumulatively contribute to global climate change.

In June 2008, the California Governor's Office of Planning and Research (OPR) published a Technical Advisory, which provides informal guidance for public agencies as they address the issue of climate change in CEQA documents. This is assessed by determining whether a project is consistent with or obstructs the 39 Recommended Actions identified by CARB in its Climate Change Scoping Plan which includes nine Early Action Measures (qualitative approach). The Attorney General's Mitigation Measures identify areas where GHG emissions reductions can be achieved in order to achieve the goals of AB 32. As set forth in the OPR Technical Advisory and in the proposed amendments to the *CEQA Guidelines* Section 15064.4, this analysis examines whether the project's GHG emissions are significant based on a qualitative and performance based standard (Proposed *CEQA Guidelines* Section 15064.4(a)(1) and (2)).

³ Carbon Dioxide Equivalent (CO₂eq) – A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

SCAQMD Thresholds

The SCAQMD has formed a GHG CEQA Significance Threshold Working Group (Working Group) to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. As of the last Working Group meeting (Meeting No. 15) held in September 2010, the SCAQMD is proposing to adopt a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency.⁴

With the tiered approach, the project is compared with the requirements of each tier sequentially and would not result in a significant impact if it complies with any tier. Tier 1 excludes projects that are specifically exempt from SB 97 from resulting in a significant impact. Tier 2 excludes projects that are consistent with a GHG reduction plan that has a certified final CEQA document and complies with AB 32 GHG reduction goals. Tier 3 excludes projects with annual emissions lower than a screening threshold. For all non-industrial projects, the SCAQMD is proposing a screening threshold of 3,000 metric tons of CO_{2eq} per year. SCAQMD concluded that projects with emissions less than the screening threshold would not result in a significant cumulative impact.

Tier 4 consists of three decision tree options. Under the Tier 4 first option, the Project would be excluded if design features and/or mitigation measures resulted in emissions 30 percent lower than business as usual emissions. Under the Tier 4 second option the Project would be excluded if it had early compliance with AB 32 through early implementation of CARB's Scoping Plan measures. Under the Tier 4 third option, the Project would be excluded if it was below an efficiency-based threshold of 4.8 metric tons of CO_{2eq} per service population per year.⁵ Tier 5 would exclude projects that implement offsite mitigation (GHG reduction projects) or purchase offsets to reduce GHG emission impacts to less than the proposed screening level.

GHG efficiency metrics are utilized as thresholds to assess the GHG efficiency of a project on a per capita basis or on a "service population" basis (the sum of the number of jobs and the number of residents provided by a project) such that the project would allow for consistency with the goals of AB 32 (i.e., 1990 GHG emissions levels by 2020 and 2035). GHG efficiency thresholds can be determined by dividing the GHG emissions inventory goal of the State, by the estimated 2035 population and employment. This method allows highly efficient projects with higher mass emissions to meet the overall reduction goals of AB 32, and is appropriate, because the threshold can be applied evenly to all project types (residential or commercial/retail only and mixed use).

Western Riverside Council of Governments Climate Action Plan

Twelve cities in Western Riverside County including the City of Hemet have joined efforts to develop the *Western Riverside Council of Governments Climate Action Plan* (WRCOG CAP), which sets forth a subregional emissions reduction target, emissions reduction measures, and action steps to assist each community to demonstrate consistency with California's Global Warming Solutions Act of 2006 (AB 32). The WRCOG CAP is the result of an analysis of existing GHG reduction programs and policies that have already been implemented in the subregion and of applicable best practices from other regions to assist in meeting the 2020 subregional reduction target. The resulting GHG reduction measures were chosen by the subregion based on their GHG-reduction potential, cost-benefit characteristics, funding availability, and feasibility of implementation. The level of implementation of each measure was

⁴ The most recent SCAQMD GHG CEQA Significance Threshold Working Group meeting was held on September 2010.

⁵ The project-level efficiency-based threshold of 4.8 MTCO_{2eq} per service population per year is relative to the 2020 target date. The SCAQMD has also proposed efficiency-based thresholds relative to the 2035 target date to be consistent with the GHG reduction target date of SB 375. GHG reductions by the SB 375 target date of 2035 would be approximately 40 percent. Applying this 40 percent reduction to the 2020 targets results in an efficiency threshold for plans of 4.1 metric tons of CO_{2eq} per service population per year and an efficiency threshold at the project level of 3.0 metric tons of CO_{2eq}/year.

determined by each community; however, WRCOG CAP presents the results collectively, demonstrating the collaborative effort and partnership that would facilitate implementation.

Western Riverside Energy Leader Partnership

The Western Riverside Energy Leader Partnership (WRELP) program builds upon the existing policies and programs in the region to analyze energy-sector emissions and propose energy conservation and renewable energy measures that reduce GHG emissions within Energy Action Plans (EAPs) for 11 Riverside County jurisdictions served by SCE, which includes Calimesa, Canyon Lake, Hemet, Lake Elsinore, Menifee, Murrieta, Norco, Perris, Temecula, San Jacinto, and Wildomar. The WRELP effort uses funding provided by SCE to implement within the region the California Long-Term Energy Efficiency Strategic Plan (CEESP), developed by the California Energy Commission as a collaborative effort in response to California's need for a long-term strategic energy efficiency plan. Following CEESP Goal 4, individual EAPs were developed for each participating jurisdiction, creating a comprehensive program to address energy efficiency, sustainability, and climate change through the years 2020 and 2035.

Riverside County Climate Action Plan

The County of Riverside adopted a CAP on December 8, 2015. Consistent with the CARB Scoping Plan, the CAP adopted a target of reducing GHG emissions down to 15 percent below existing levels within the County of Riverside by 2020. The CAP also provides the specific criteria that new development must follow to ensure that the reduction measures associated with new development are implemented and the reduction target is met. Additionally, it provides a set of community-wide GHG emissions inventories that are anticipated without the reduction measures, and reduced levels of 2020 GHG emissions, which demonstrates how the implementation of reduction measures achieves the reduction target. The County provides various methods for determining project-level consistency with the CAP, including screening tables and a threshold of 3,000 metric tons of CO_{2eq}. The screening tables provide guidance in measuring GHG reductions attributable to certain design and construction measures incorporated into development projects, while the 3,000 metric tons of CO_{2eq} threshold is provided for smaller projects that would not be able to provide the reductions expected from the screening tables or alternate emission analysis method.

For the Project, the 3,000 metric tons of CO_{2eq} per year threshold is used as the significance threshold, in addition to the qualitative thresholds of significance set forth below from Section VII of Appendix G to the CEQA Guidelines. This threshold is consistent with the recently adopted County CAP as well as the proposed SCAQMD non-industrial screening threshold.

3.7.2 Impact Assessment

Would the Project:

- a) **Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

Less Than Significant Impact.

Project-Related Sources of Greenhouse Gases

Project-related GHG emissions would include emissions from construction activities. Construction of the Project would result in direct emissions of CO₂, N₂O, and CH₄ from the operation of construction equipment. Transport of materials and construction workers to and from the Project site would also result in GHG emissions. Construction activities would be short-term in duration and would cease upon Project completion. The Project involves the construction of a dual track trail alignment comprised of a paved

multi-use pathway adjacent to a pedestrian trail and does not propose a trip-generated land use. The operation of the Project would not result in any new sources of operational GHG emissions, as there would be no increase in vehicle trips and no new land uses are proposed. Consequently, Project-related GHG emissions would only be from construction activities.

Project-related GHG emissions would result from the proposed construction activities over the construction period. Construction GHG emissions are typically summed and amortized over the lifetime of the Project (assumed to be 30 years), then added to the operational emissions.⁶ Table 3-8 presents the estimated CO₂, CH₄, and N₂O emissions of the Project. The CalEEMod outputs are contained in the Appendix C. As shown in Table 3-6, the Project would result in 347.04 metric tons of CO₂eq (11.57 metric tons of CO₂eq when amortized over 30 years), which is well below the 3,000 metric tons of CO₂eq/year screening threshold.

TABLE 3-8 ESTIMATED GREENHOUSE GAS EMISSIONS

	Metric Tons/yr	Metric Tons/yr	Metric Tons of CO ₂ eq	Metric Tons/yr	Metric Tons of CO ₂ eq	
Construction Emissions						
Total emissions	344.74	0.09	2.30	0.00	0.00	347.04
Total emissions (amortized over 30 years)	11.49	0.00	0.08	0.00	0.00	11.57

Notes:

1. CO₂ Equivalent values calculated using the U.S. EPA Website, *Greenhouse Gas Equivalencies Calculator*, <http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>, Accessed December 2015.
2. Totals may be slightly off due to rounding. Due to rounding, the results given by the equation calculations used in the Greenhouse Gas Equivalencies Calculator may not return the exact results shown in CalEEMod.

Refer to Appendix C, for detailed model input/output data.

Source: Michael Baker International 2016a.

As GHG emissions from construction of the Project would be minimal and less than the 3,000 metric tons of CO₂eq GHG emissions threshold adopted by the County of Riverside and proposed by the SCAQMD; therefore, a less than significant impact would occur and no mitigation would be required.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. The City of Menifee is currently working on guidance for incorporating energy efficiency priorities into the planning process and an implementation program for the General Plan and the City's CAP.⁷ The City of Hemet participated in the WRCOG CAP, which sets forth a subregional emissions reduction target, emissions reduction measures, and action steps to assist each community to demonstrate consistency with California's Global Warming Solutions Act of 2006 (AB 32). The WRCOG CAP establishes a community-wide emissions reduction target of 15 percent below 2010, following guidance from CARB and OPR. CARB and the California Attorney General have determined this approach to be consistent with the State-wide AB 32 goal of reducing emissions to 1990 levels. The WRCOG CAP does not establish a reduction target for 2035 or future years; however the WRCOG CAP

⁶ The project lifetime is based on the standard 30 year assumption of the South Coast Air Quality Management District (South Coast Air Quality Management District, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13*, August 26, 2009).

⁷ City of Menifee Community Development Department, *City of Menifee General Plan Housing Element 2013-2021*, February 5, 2014.

identifies a reduction goal of 49 percent below baseline emissions levels to set the WRCOG subregion on a trajectory to meet targets identified in SB 375 and EO S-3-05, recognizing that information, methodologies, and data availability may change between now and 2035. Table 3-9 discusses the Project’s consistency with the applicable policies that would contribute to GHG reductions and sustainable practices in the city.

TABLE 3-9 WRCOG CLIMATE ACTION PLAN CONSISTENCY

Measure E-1: Energy Action Plans: Improve municipal and community-wide energy efficiency and reduce energy consumption through the adoption of local Energy Action Plans (EAP).	Consistent. The cities of Hemet and Menifee are participating in the Western Riverside Energy Leader Partnership (WRELP) program that build upon existing policies and programs in the region to analyze energy-sector emissions and propose energy conservation and renewable energy measures that reduce GHG emissions within EAPs.
Measure T-1: Bicycle Infrastructure Improvements: Expand on-street and off-street bicycle infrastructure/ including bicycle lanes and bicycle trails.	Consistent. The Project proposes a multi-use trail consisting of an approximate 12- to 14-foot wide Class I paved multi-use pathway for use by a variety of groups including cyclists.
Measure T-5: Transit Service Expansion: Collaborate with local and regional transit providers to increase transit service provided in the subregion.	Consistent. As the Project area is served by Riverside Transit, the Project would enhance existing transit services by improving circulation and access to the Project area.
Measure T-7: Traffic Signal Coordination: Incorporate technology to synchronize and coordinate traffic signals along local arterials.	Consistent. The Project proposes the installation of pedestrian activated traffic signals to improve safety at traffic crossings.

Source: Michael Baker International 2016a.

The Project involves multi-use trail to serve a variety of user groups including pedestrians and cyclists. The Project would not conflict with the WRCOG CAP, as the Project does not change the cities’ land use designations and would not increase population beyond that considered in the cities’ General Plans. As noted above, the Project would implement Project design features consistent with the WRCOG CAP and relevant General Plan policies. In addition, the Project would be subject to applicable Federal, State, and local regulatory requirements, further reducing Project-related GHG emissions. The Project would not conflict with or impede implementation of reduction goals identified in AB 32 and other strategies to help reduce GHG emissions. Therefore, the implementation of the Project would not affect any plans, policies, or regulations adopted for the purpose of reducing GHG emissions. No impact would occur and no mitigation would be required.

3.7.3 Mitigation Measures

No mitigation measures are proposed.

3.8 Hazards and Hazardous Materials

Information in this section is based on the *Phase I Initial Site Assessment (ISA)* prepared by Michael Baker International (2016b). The Phase I ISA was conducted along the Project alignment to identify and evaluate the level of risk to the Project relative to hazardous materials, hazardous waste, and/or contamination along the Project corridor that could potential be encountered during construction activities and/or operations.

3.8.1 Environmental Setting

The following information sources were used in preparation of the ISA: review of the USGS Hemet, California (dated 2015), Winchester, California (dated 2015) and Romoland, California (dated 2015)

Quadrangles as well as a site inspection conducted by Michael Baker International on December 15, 2015.

Western Segment

Within the western segment, Normandy Road contains two lanes (one in each direction) trending in an east to west direction, Murrieta Road contains three lanes (one in each direction with turning lanes) trending in a north to south direction, Bradley Road contains two travel lanes (one in each direction) trending in a north to south direction, and Antelope Road contains two travel lanes (one in each direction) trending in northwest to southeast direction. Salt Creek channel is present on-site, trending in an east to west direction. One bridge structure is located within the western segment of the Project site where Salt Creek passes under I-215.

Eastern Segment

Within the eastern segment, the Project site trends along the northern dirt parkway of Domenigoni Parkway as well as along the MWD property west of State Street. The existing concrete box culvert associated with Drainage 1 (refer to Figure 3-6B) would be extended as part of the Project.

Current Uses of Adjoining Properties

An adjoining property is considered any real property or properties that border the Project site. An adjoining property is defined as either contiguous or partially contiguous with that of the Project site, or that would be contiguous or partially contiguous with that of the Project site but for a street, road, or other public thoroughfare separating them. Table 3-10, provides a description of each adjoining land use observed on December 15, 2015.

TABLE 3-10 CURRENT USES OF ADJOINING PROPERTIES

TABLE 3-10 CURRENT USES OF ADJOINING PROPERTIES		
Western Segment	North:	Residential, transportation, utility (wastewater facility), and vacant land uses are located to the north.
	East:	Residential, transportation, and recreation (golf course) land uses are located to the east.
	South:	Vacant land uses (associated with Salt Creek channel) are located to the south. Further south, residential and commercial uses are present.
	West:	Commercial, residential, recreational (park), and transportation uses are located to the west.
Eastern Segment	North:	Residential, institutional (school), and vacant land uses are located to the north.
	East:	Residential, transportation, and vacant land uses are located to the east.
	South:	Transportation and vacant land uses are located to the south.
	West:	Transportation, institutional (school), and vacant land uses are located to the west.

3.8.2 Impact Assessment

Would the Project:

- a) **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

Less Than Significant Impact. The Project would provide a multi-use trail generally along the Salt Creek Channel within the cities of Hemet and Menifee for pedestrians and bicyclists, and would not involve the routine transport, use, or disposal of substantial quantities of hazardous materials. During the construction phase of the Project, there is a limited risk of accidental release of hazardous materials such as gasoline, oil, or other fluids used in the operation and maintenance of construction equipment. With the exception of utilizing gasoline and diesel fuels in the construction equipment, no other hazardous materials would be transported to or from the Project site. These materials are typical for construction activities and would be handled, stored, and disposed in accordance with existing regulations. This use would not pose a significant hazard to the public or the environment. Implementation of the Project would not generate hazardous emissions, nor involve the routine use, transport, or disposal of hazardous materials. Therefore, this impact is considered less than significant and no mitigation would be required.

- b) **Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

Less Than Significant Impact with Mitigation Incorporated. The Phase I ISA was performed in order to evaluate the potential presence of hazardous materials and to identify "Recognized Environmental Conditions" (RECs) located on or adjacent to the Project site. The Phase I ISA was prepared using methods consistent with the ASTM E 1527-13 Standard Practice for environmental assessments. The findings of the Phase I ISA are based upon a review of reasonably ascertainable referenced material available during the preparation of the Phase I ISA, these materials included a review of historical aerial photographs, historical topographic maps, Sanborn maps, regulatory databases, and other documentation, as well as interviews and site reconnaissance. As detailed in the Phase I ISA, no evidence of RECs were discovered in connection with the Project site relative to current on-site uses, past on-site uses (including past agricultural uses), current and past adjoining and adjacent uses.

As stated above, during the short-term period of Project construction, there is a possibility of accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluid used for construction equipment. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials utilized during construction and because none of these materials is considered to be acutely hazardous. Furthermore, all hazardous materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations.

As detailed in the Phase I ISA, lead-based paints (LBPs) were commonly used in traffic striping materials before the discontinued use of lead chromate pigment in traffic striping/markings materials and hot-melt thermoplastic stripe materials (discontinued in 1996 and 2004, respectively). Michael Baker International observed traffic striping along Goetz Road, Normandy Road, Murrieta Road, Bradley Road, and Antelope Road (western segment) during the December 15, 2015 site visit. The Phase I ISA determined that the current on-site traffic striping located in the western segment has not resulted in an REC at the Project site as a result of LBPs; however, should construction activities result in the disturbance of traffic striping materials, the generated wastes should be disposed of at an appropriate, permitted disposal facility as determined by a lead specialist (refer to mitigation measure HAZ-1). Michael Baker International also observed traffic striping along Domenigoni Parkway and State Street during the December 15, 2015 site visit. However, the Project site is not located within the paved roadway, but rather vacant land and MWD

property. Therefore, LBPs associated with traffic striping are not anticipated to be present on-site in the eastern segment.

Aerially Deposited Lead (ADL) refers to lead deposited on highway shoulders from past leaded fuel vehicle emissions. Although leaded fuel has been prohibited in California since the 1980s, ADL may still be present in soils adjacent to highways in use prior to that time. According to historical aerial photographs, topographic maps, and Sanborn maps, the western segment appears to have consisted of vacant land uses traversed by transportation uses since 1901. However, the roadways traversing the Project site did not appear to be heavily traveled and have since been improved. I-215 appears to have been improved, from the historical Highway 395, between 1979 and 1984, at which time leaded gasoline was no longer heavily used. Further, the Project site is located within the floodplain of Salt Creek channel, which regularly carries sediment downstream. Therefore, the potential for lead contamination to exist within soils along on-site roadways or along I-215 due to aerially deposited lead is unlikely within the western segment. The eastern segment of the Project site appears to have consisted of vacant land and the improved State Street since 1901. At this time, State Street did not appear to be heavily traveled. By the mid-1980s to mid-1990s, Domenigoni Parkway was constructed, at which time leaded gasoline was no longer heavily used. Based on the low number of vehicles traveling along the Project alignment (rural thoroughfare), and the age of Domenigoni Parkway, the potential for lead contamination to exist within exposed soils due to ADL is unlikely within the eastern segment. As determined in the Phase I ISA, ADL has not resulted in a REC on-site and no mitigation would be required.

The Salt Creek channel undercrossing structure is present in the western segment. The I-215 bridge structure could potentially contain LBPs or Asbestos containing materials (ACMs). The bridge structure appears to have been constructed between 1979 and 1984. Because the bridge was constructed after 1979, structural LBPs or ACMs are not anticipated to be present on site. Furthermore, the proposed trail would trend under the bridge structure, and would not result in any modification to the bridge structure. Therefore, no REC would occur related to LBPs or ACM associated with the bridge undercrossing and no mitigation would be required.

One pole-mounted transformer was noted within the eastern segment during the December 15, 2015 site visit. However, no evidence of dielectric fluid or staining was noted on-site. Based on the proposed trail improvements, the Project would not remove or relocate any power lines/transformers. It was determined in the Phase I ISA that the on-site transformer has not resulted in an REC on the Project site and no mitigation would be required.

The western portion of the eastern segment appears to have been associated with mining activities from sometime between 1942 and 1953 until the construction of Domenigoni Parkway (sometime between 1984 and 1996). Due to the construction of Domenigoni Parkway, this area has been highly disturbed and although residential contamination from past mining activities may be present, it is not anticipated to be present above regulatory thresholds due to the past site disturbance activities. The Phase I ISA concluded that a *de minimis*⁸ condition is present and no REC has resulted in this regard. Furthermore, as part of Project construction, fill material would be placed in this area to construct the trail top, further minimizing contact of future trail users to native soils at this location. Past mining activities have not resulted in an REC on the Project site and no mitigation would be required.

While the Phase I ISA indicated that there is no evidence of REC on both the western and eastern segments of the Project site relative to current on-site uses, past on-site uses (including past agricultural and mining uses), current and past adjoining and adjacent uses, there could be the potential to encounter

⁸ A condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* conditions are not RECs nor controlled recognized environmental conditions.

unknown wastes or suspected materials during construction activities (refer to mitigation measure HAZ-2). Compliance with standard construction requirements and implementation of mitigation measures HAZ-1 and HAZ-2 impacts associated with the release of hazardous materials into the environment during construction activities would be reduced to less than significant.

Since the Project involves development of a trail for pedestrian and bicycle use, long-term operations at the Project site would not result in the release of hazardous materials. Therefore, this impact is considered less than significant and no additional mitigation would be required.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. The Newport Child Development Center (located in the City of Menifee), Diamond Valley Middle School and McSweeney Elementary (located in the City of Hemet) are located within one-quarter mile of the Project site. However, the Project involves the construction of a multi-use trail for pedestrians and bicyclists and does not include the development of any uses that would involve the use, storage, or transport of hazardous materials and would not result in hazardous emissions or require the handling of acutely hazardous materials. This impact is considered less than significant, and no mitigation is required.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. As mentioned above, searches in regulatory databases were conducted to evaluate the potential for the Project site or properties near the Project site to create adverse environmental impacts. The database searches concluded that the Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Table 3-11 identifies reported sites adjoining and adjacent to both the western segment and eastern segment. The reported regulatory properties located proximate to the Project area have not resulted in a REC. Therefore, no impact in this regard would result from the Project.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

Less Than Significant Impact. The Hemet-Ryan Airport, located approximately 1.5 miles to the northwest of the eastern segment of the Salt Creek Trail, is a County-owned, public use airport managed by the Riverside County Economic Development Agency. The Project is located within the Hemet-Ryan Airport Influence Area. The airport primarily serves Hemet and San Jacinto, but also offers access to various mountain resorts surrounding Hemet and Diamond Valley Lake. The Hemet-Ryan Airport Land Use Compatibility Plan, as adopted in February 2017, is the currently applicable Compatibility Plan for the Hemet-Ryan Airport. The Hemet-Ryan Airport Compatibility Plan describes land use compatibility by Compatibility Zones within the airport Influence Area. For each Compatibility Zone, certain uses are prohibited, while other uses are either compatible or potentially compatible and subject to discretionary review by the Riverside County Airport Land Use Commission (ALUC). According to the Hemet-Ryan Airport Compatibility Plan, the Project site is located within Compatibility Zone E. Within Compatibility Zone E, there is no concern with regard to any object up to 100 feet tall unless it is located on high ground or it is a solitary object (e.g., antenna) more than 35 feet above the ground. Also, and so long as the aforementioned conditions are satisfied as it relates to the height of objects, projects within Compatibility Zone E are not subject to ALUC review.

The March Air Reserve Base/Inland Port Airport, located approximately 11.5 miles north of the western segment of the Salt Creek Trail, is owned by the United States Air Force. The Project is located within the March Air Reserve Base/Inland Port Airport Influence Area. The March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan, as adopted in November 2014, is the currently applicable Compatibility Plan for the March Air Reserve Base/Inland Port Airport. Like the Hemet-Ryan Airport Compatibility Plan, the March Air Reserve Base/Inland Port Airport describes land use compatibility by Compatibility Zones within the airport Influence Area. According to the March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan, the Project site is located within Compatibility Zone E. Within Compatibility Zone E, and as stated previously, there is no concern with regard to any object up to 100 feet tall unless it is located on high ground or it is a solitary object more than 35 feet above the ground. So long as these conditions are satisfied, projects within Compatibility Zone E of the March Air Reserve Base/Inland Port Airport Influence Area are not subject to ALUC review.

Because the Project involves the construction of a multi-use trail for pedestrians and bicyclists and does not include the development of any objects over 35 feet in height, the Project is consistent with both the Hemet-Ryan Airport Land Use Compatibility Plan and the March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan. Therefore, the Project-related impact is considered less than significant and no mitigation would be required.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. Neither the eastern nor western segments of the Project site are located within the vicinity of a private airstrip. Therefore, the Project would not result in a safety hazard for people residing or working in the Project area.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. Emergency response and evacuation in the City of Menifee is the responsibility of the Riverside County Fire Department (RCFD) and the Riverside County Sheriff's Department. The RCFD operates the Office of Emergency Services (OES) which fulfills a wide variety of roles from field response to emergency incidents within the County to operating the County Emergency Operation Centers in supporting and recovering from major emergencies and disasters. All County OES activities are focused on the four primary phases of emergency management; (1) Mitigation, (2) Preparedness, (3) Response, and (4) Recovery. OES is the lead agency in fulfilling the County's responsibility under the California Emergency Services Act (Chapter 7 of Division 1 of Title 2 of the CA Government Code) and also serves as the Operational Area Coordinator for Riverside County under the Standardized Emergency Management System (CA Government Code 8605). In the City of Hemet, emergency response and evacuation is the responsibility of the Fire Department and Police Departments. The City of Hemet has entered into reciprocal mutual aid agreements with CAL FIRE and the Idyllwild Fire Protection District to expedite service for the community. The City Fire Department also manages OES and is charged with coordinating emergency response and terrorism related programs with other jurisdictions and City departments.

There are no designated emergency evacuation routes within the western segment or eastern segment of the Project alignment. The Project would not result in interference with any adopted emergency response plans or evacuation plans. Implementation of the Project includes new multi-use trail for pedestrians and bicyclists and associated intersection improvements including pedestrian-activated traffic signals at three crossings (Normandy Road, Murrieta Road, and Bradley Road) and traffic safety signage. The pedestrian/trail crossings at Normandy Road, Murrieta Road, and Bradley Road would be standard traffic signals (activated by the pedestrian push buttons only) with standard safety lights. As discussed in

Checklist Response 3.16.2, Transportation and Traffic, below, during construction, there is a potential for temporary lane closures at intersections in order to install pedestrian crossings where the trail would cross an existing roadway. Traffic flow would be maintained in at least one direction during the lane closure to provide for the safe traffic flow in the Project area. Special provisions for the Traffic Control System would be prepared by the County for inclusion in the Project specifications to ensure safe traffic flow during construction and ensure coordination with property owners and emergency service providers in the area prior to and during Project construction (refer to mitigation measure TRAFFIC-1). Therefore, the Project is not expected to interfere with an adopted emergency response plan or emergency evacuation plan; impacts would be less than significant and no further mitigation would be required.

TABLE 3-11 IDENTIFIED REGULATORY SITES OF CONCERN

SITE NAME/ADDRESS	DIRECTION FROM PROJECT SITE	REGULATORY DATABASE	EDR SITE STATUS
Western Segment			
26207 Potomac Drive	Adjoins the Project site to the north	ERNS CHMIRS	Reported ERNS incident on 2/28/2011; spilled unknown amount of herbicide. Remedial action included speaking to the crews and their supervisor about dumping. Reported CHMIRS incident on 2/28/2011; caller stated employees were dumping herbicide into Salt Creek channel. It is unknown if the spill was contained.
Menifee Perris Desalters Iron and Manganese Removal Activity EMWD Sun City RWR Reach 4 Sun City RWRF Sun City RWRF Solar Pad Project Eastern Municipal Water DIST STPSUN City Regional Sun City Regional Water Reclamation Facility EMWD Sun City WRF Sun City Desalter Storm Sun City Water REC FAC Eastern Municipal Water District 29541 Murrieta Drive 29285 Valley Boulevard 29825 Valley Boulevard 29541 Murrieta Road	Adjoining the Project site to the north	NPDES ERNS CHMIRS UST FINDS HAZNET WDS AST RMP RCRA-SQG SWEEPS UST CA FID UST EMI	Reported NPDES: regulatory measure type: enrollee, construction. Termination date 10/23/2013. Reported ERNS incident on 10/6/2011; spilled 3000 gallons of TDC water (total dissolved solids). Remedial action included cleanup crew on the scene. Reported CHMIRS incident on 2/19/2010; for unknown reasons a release occurred from a tank into secondary containment. Reported UST. Reported in the FINDS database. Reported NPDES; regulatory measure type construction. Termination date for regulatory measure not reported. Reported in the HAZNET database. Waste category: off-specification, aged or surplus inorganics and waste oil and mixed oil; disposal method: recycler. Reported WDS facility, primary waste type included nonhazardous solid waste/ influent or solid wastes that contain nonhazardous putrescible and nonputrescible solid, semisolid and liquid wastes. Facility poses a moderate threat to water quality. Reported WDS facility, with primary waste consisting of domestic waste (DOMEST). Facility is listed as a moderate threat to water quality. Reported ERNS incident on 11/30/2002; reported release of sodium hypochlorite from a valve that was accidentally left open. Remedial actions included berm drained material into a recovery for another treatment plant. Reported AST. Facility reported as RMP, sewage treatment facility. Reported small quantity generator, no violations found. Reported in the FINDS database. Reported in the HAZNET database. Waste category: not reported; disposal method: Storage, Bulking, and/or Transfer Off Site--No Treatment/Recovery. Waste category: other organic solids; disposal method: disposal, landfill. Waste category: Off-specification, aged or surplus inorganics; disposal: neutralization only.

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			<p>Reported small quantity generator, no violations found. Reported in the FINDS database. Reported in the HAZNET database. Waste category: not reported. Disposal method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Recovery. Waste category: Off-specification, aged or surplus inorganics. Disposal method: Metals Recovery Including Retorting, Smelting, Chemicals, etc.; Landfill Or Surface Impoundment That Will Be Closed As Landfill; Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery, etc.; Treatment, Tank. Waste category: Liquids with pH<= 2. Disposal method: Landfill Or Surface Impoundment That Will Be Closed As Landfill. Reported WDS facility; primary waste type not reported.</p> <p>Facility listed as a minor threat to water quality. Reported CHMIRS incident on 2/23/1991; substance not reported and description not reported. Reported CHMIRS incident on 8/18/2004; brine (salt water) was released from a wet well and discharged into Salt Creek channel during the dry season. No clean-up was completed, and substance was unrecoverable. Reported CHMIRS incident on 5/26/2015; a power failure caused the pumps to fail, causing an overflow resulting in the release of 2,000 gallons of brine. Reported one (1) SWEEPS UST. Reported in the CAFID UST database. Spill was contained and no waterways were impacted. Reported EMI in 1990. Reported in the FINDS database.</p>
Philip F. Liso 26851 Potomac Drive	Adjoins the Project site to the north	PEST LIC	Reported PEST LIC.
Round-Up JR. Mart 24610 Railroad Canyon Road	Adjoins the Project site to the northwest	UST LUST HIST Cortese	Reported UST. Reported Riverside Co. LUST, referred to the Water Board. Reported LUST gasoline release to aquifer used for drinking water supply and surface water. Site status: open for remediation as of 1/7/2002.
Subsequent Applicant			
Hemet MFG Co. Inc., Gensis Construction, Various Locations in SCAQMD Hemet, CA	Possibly Adjoining Project site (intersection of Domenigoni Parkway and State Street) to the southeast	FINDS	Reported in the FINDS database.

Source: Michael Baker International 2016b.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Less Than Significant Impact. The City of Menifee General Plan identifies the western segment of the trail alignment to be located in an area ranging from Very High, High, to Moderate Fire Hazard Severity Zone. The eastern segment of the trail alignment is not located in a Wildland Fire Hazard Severity Zone as designated by the City of Hemet General Plan. However, the area immediately to the south of the trail (along portions of Domenigoni Parkway) within the eastern segment is designated as a Very High Wildland Fire Hazard Severity Zone. Project construction activities have the potential to increase the risks associated with wildfires due to the presence of construction equipment and potential leaks from heavy equipment; the use of flammable liquids; and presence of combustion engines. Standard construction practices and procedures would reduce wildfire risks and protect workers and nearby residences during construction activities. Because the Project involves the construction of a multi-use trail for bicyclist and pedestrians; operation of the Project would not introduce a fuel source. Project implementation is anticipated to have a low probability for causing a wildland fire. The Project does not include habitable structures; therefore, the Project would not expose people or structures to a significant risk involving wildland fires beyond existing conditions. This impact is considered less than significant and no mitigation would be required.

3.8.3 Mitigation Measures

HAZ-1 Disturbance of Traffic Striping: Should construction activities result in the disturbance of traffic striping materials (western segment only), the generated wastes shall be disposed of at an appropriate, permitted disposal facility as determined by a lead specialist. A Debris Containment Work Plan and a Lead Compliance Plan would be prepared by the Contractor prior to site disturbance activities in order to address the special handling and/or waste management when existing traffic stripe/pavement marking are removed. The plans should be consistent with the Caltrans standard provisions for the removal of existing traffic stripe/pavement marking.

HAZ-2 Unknown Contamination: If unknown wastes or suspect materials are discovered during construction by the contractor that are believed to involve hazardous waste or materials, the contractor shall comply with the following:

- Immediately cease work in the vicinity of the suspected contaminant, and remove workers and the public from the area;
- Notify the Riverside County Transportation Department Engineer;
- Secure the area as directed by the County Engineer; and
- Notify the Riverside County Department of Environmental Health's Hazardous Waste/Materials Coordinator (or other appropriate agency specified by the County Engineer). The Hazardous Waste/Materials Coordinator shall advise the responsible party of further actions that shall be taken, if required.

3.9 Hydrology and Water Quality

Information in this section is based on the *Salt Creek Trail Project Water Quality Technical Memorandum* prepared by POWER Engineers, Inc. (2017), and the *Salt Creek Trail Zone AE and Regulatory Floodway Analysis* (Michael Baker International 2017b) and *Location Hydraulic Study* (Michael Baker International 2017c).

3.9.1 Environmental Setting

The Salt Creek Flood Control Channel is an existing RCFC&WCD unlined flood control channel that begins 0.25 mile southeast of the intersection of Domenigoni Parkway and Searl Parkway in the Saint Johns Canyon Hydrologic Unit (HUC 180702020301, refer to Figure 4 Watersheds; USEPA 2015), in the City of Hemet. The Salt Creek Flood Control Channel is fed by stormwater runoff from the developed areas of Hemet, East Hemet, and Menifee, and receives runoff from ephemeral streams (i.e., streams that flows in direct response to precipitation) discharging from the surrounding hills and rural areas, flows west through the San Jacinto Valley Hydrologic Unit (HUC 180702020302; USEPA 2015a) and ends at the western edge of the Menifee Valley Hydrologic Unit (HUC 180702020303; USEPA 2015a) where it enters Canyon Lake. Water from the Salt Creek Flood Control Channel eventually reaches the Pacific Ocean by way of Lake Elsinore, and Temescal Wash, which discharges into Reach 3 of the Santa Ana River near the Prado Flood Control Basin, which designates the Salt Creek Flood Control Channel as a water of the United States.

The Western Segment of the Project would be located in City of Menifee, in the Menifee Valley Hydrologic Unit, which drains an area of approximately 27.9 square miles (72.3 square kilometers; USEPA 2015a). Surface water in this segment of Salt Creek is provided mainly by stormwater runoff in the developed areas of Menifee to the north, and discharge from the rural residential areas and ephemeral streams discharging from the hills on the south.

The Eastern Segment of the Project would be located in the City of Hemet near the northeast edge of Diamond Valley Lake. This segment is located primarily in the Saint Johns Canyon Hydrologic Unit except for an approximate 0.75-mile stretch, ending at Cawston Avenue that is within the San Jacinto Valley Hydrologic Unit (as shown in Figure 4). The Saint Johns Hydrologic Unit drains an area of approximately 41.1 square miles (106.4 square kilometers; USEPA 2015a), mostly from ephemeral streams discharging from the Santa Rosa Hills and Polly Butte on the east, and the hills and canyons south and southeast of Diamond Valley.

The 0.75-mile portion of the Eastern Segment that is located in the San Jacinto Valley Hydrologic Unit generally parallels a section of the Salt Creek Flood Control Channel that receives stormwater runoff from the developed areas on the north side of the channel, from the north-facing slopes of the hills that border Diamond Valley Lake, and from the Saint Johns Hydrologic Unit reach of the Salt Creek Flood Control Channel. The San Jacinto Valley Hydrologic Unit drains an area of 57.2 square miles (148.2 square kilometers; USEPA 2015a).

The Saint Johns Hydrologic Unit, San Jacinto Valley Hydrologic Unit, and the Menifee Valley Hydrologic Unit are themselves located in the San Jacinto Watershed (Unit Code 18070202; USEPA 2015b), which drains approximately 720 square miles (1,916.6 square kilometers) in the western half of Riverside County (LESJWA 2012). The San Jacinto Watershed comprises the southeast portion of the larger Santa Ana River Watershed (Unit Code 180702; USEPA 2015a), which drains an area of approximately 2,780.9 square miles (7,202.6 square kilometers). Stormwater in the Salt Creek Flood Control Channel ultimately discharges into Reach 3 of the Santa Ana River, in the Prado Flood Control Basin, via Temescal Wash.

The Salt Creek Flood Control Channel has the intermittent beneficial uses of Water Contact Recreation (REC 1), Non-contact Water Recreation (REC 2), Warm Freshwater Habitat (WARM), and Wildlife Habitat (WILD). Canyon Lake has the beneficial uses of Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Groundwater Recharge (GWR), Water Contact Recreation (REC 1), Non-contact Water Recreation (REC 2), Warm Freshwater Habitat (WARM), and Wildlife Habitat (WILD) (RWQCB 2014).

The Salt Creek Flood Control Channel is not listed as impaired on the 2010 CWA Section 303(d) List of Water Quality Limited Segments Requiring TMDLs [Total Maximum Daily Loads]; however, Canyon Lake is listed under Category 5B criteria, as a water segment where standards are not met and a TMDL is required, but not yet completed, for at least one of the pollutants listed for that water body. Canyon Lake was listed in 1998 as impaired by nutrients from nonpoint sources; the U.S. Environmental Protection Agency (USEPA) approved a TMDL for this pollutant in 2005. Canyon Lake was also listed in 1998 as impaired by pathogens from nonpoint sources, and the TMDL completion date for this pollutant was 2006 (SWRCB 2010).

3.9.2 Impact Assessment

Would the Project:

a) Violate any water quality standards or waste discharge requirements?

Less Than Significant Impact. The Project site is located within the jurisdiction of the Santa Ana RWQCB, Region 8, and is subject to Construction General Permit Order No. 2012-0006-DWQ (NPDES No. CAS000002), which amends Order No. 2009-2009-DWQ as amended by Order No. 2010-0014-DWQ. As mandated by the General Construction Permit, the Project would develop a SWPPP that would direct how stormwater and accidental non-stormwater discharges would be avoided, minimized, or contained during the course of construction.

The Project is located within the San Jacinto Watershed, which is situated in the southeast portion of the Santa Ana River Watershed; therefore, the Project is subject to Order No. R8-2010-0033 (NPDES No. CAS 618033), the *National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for the Riverside County Flood Control District and Water Conservation District, the County of Riverside, and the Incorporated Cities of Riverside County within the Santa Ana Region Area-Wide Urban Runoff Management Program (MS4)*. The Riverside County Flood Control and Water Conservation District is the Principal Permittee, and the Cities of Menifee and Hemet are among the Co-Permittees (Permittees or Permittee). Order No. R8-2010-0033 regulates the discharge of pollutants in urban runoff from non-agricultural anthropogenic sources from the MS4 that is owned or operated by a Permittee.

To the extent that the Permittee authorizes the connections of these discharges into their MS4, this Order requires development of a standard design and post-development BMP guidance to direct application of Low-Impact Development BMPs for the maximum extent practicable on streets, roads, or highways under the jurisdiction of the Permittees, used for the transportation of automobiles, trucks, motorcycles, and other vehicles. The Santa Ana Region MS4 Permit Program prepared a template for *Low Impact Development: Guidance and Standards for Transportation Projects (Guidance)* to provide direction to transportation project owners and operators regarding how to address MS4 Permit requirements for public works transportation projects under their jurisdiction.

To maintain compliance with the Santa Ana Region MS4 Permit, the County has prepared the *Santa Ana Region MS4 Program Low Impact Development: Guidance and Standards for Transportation Projects, Salt Creek Trail (County Project No. C5-0068)* to conduct a Low-Impact Development BMP Feasibility

Analysis to determine source control BMPs for Class I Bikeways and Sidewalks, such as the proposed Salt Creek Trail (Michael Baker International 2016b). This Feasibility Analysis has been approved by the Riverside County Regional Park and Open Space District and the Project would incorporate approved BMPs into Project design to protect water quality, including public education through the use of signage addressing trash and animal waste, sheetflow would be directed onto adjacent permeable areas, and trail would be designed using the minimum required width.

Approximately 30.7 acres of clearing and grubbing activities would be required for construction of the Project. Within both segments of the Project, the majority of the clearing and grubbing would occur in disturbed areas (25.4 acres) and in smaller areas designated Developed (3.3 acres), Non-Native Grassland (1.6 acres), and Riprap (0.2 acre).

Approximately 13.3 acres of net new impervious surface would be added as result of the Project. The conceptual roadway drainage system for the paved bike path would allow stormwater to sheet flow over the paved bike path toward the approximate five-foot wide decomposed granite pedestrian path, which is located on the downstream side of the paved bike path. The decomposed granite material would decrease the velocity of the storm runoff, as well as retain a small amount of stormwater runoff for percolation into the ground. Excess stormwater would percolate into the vegetated floodplain (edges) of the Salt Creek Flood Control Channel until saturation is reached, at which point runoff would discharge into the low-flow channel of the Salt Creek Flood Control Channel and other existing drainages in a manner similar to existing conditions. No additional drainage systems or improvements would be required or constructed as part of the Project.

The general topography of the Project site is not expected to be altered to the extent that the Project would result in new or significant additional water quality issues (e.g., additional turbidity or sedimentation of downstream waters). The existing conditions of the native soils within the western segment Project limits range from well-drained to poorly drained, and within the limits of the eastern segment soils range from somewhat excessively drained to moderately well. Since Project design follows existing topography of the channel bank except in a few localized areas, it is anticipated that construction and operation of the Project would not create new or additional impacts on water quality or erosion.

The Project is not expected to result in violations of water quality standards or objectives. Stormwater discharged from the Project site during construction would be treated with site-specific and site-appropriate BMPs as mandated by the Project SWPPP. During operation of the Project, stormwater discharged from the trail is anticipated to be improved in quality compared to stormwater currently discharged from the existing dirt maintenance road in that the materials expected to be used for the Project would not contribute to downstream turbidity, as an unimproved dirt road would due to erosion and sediment transport; impacts would be less than significant and no mitigation would be required.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

No Impact. The Project would not substantially interfere with groundwater recharge such that there would be a net deficit in aquifer volume or lowering of the local groundwater table. The Project would not include the construction of large areas of impervious surfaces that would prevent water from infiltrating into the ground nor would it result in direct additions or withdrawals to existing groundwater. The Project segments are generally located on an existing maintenance road above the Salt Creek channel and along the shoulder of existing roadways, and the maximum depth of excavation would be approximately one foot along most of the trail with depths up to four feet in some areas of localized grading. Installation of traffic signals would require grading to depths of up to 15 feet.

As further detailed in the Water Quality Technical Memorandum (January 2017), depth to groundwater in the Project area ranges from 19.7 feet below the surface in a well on southern tip of the Sun City Regional Water Reclamation Facility (well ID number 337071N1171276W001), 0.6 mile east of Murrieta Road, to 258.3 feet below the surface in a well located approximately 350 feet north of the intersection of West Johnson Avenue and South Palm Avenue (well ID number 337339N1169805W001), approximately one mile northwest of the eastern segment terminus at West Chambers Street and South State Street. The Project segments are generally located on a berm above the Salt Creek Flood Control Channel, and the maximum depth of excavation would be approximately one foot along most of the trail with depths up to four feet in some areas of localized grading, and installation of traffic signals would require grading to depths of up to 15 feet.

A total of three traffic signals are proposed, one each where the trail would intersect Normandy Road, Murrieta Road, and Bradley Road. In addition, a single pedestrian push button post is proposed to be added to the existing traffic signal at Searl Parkway. As detailed in the Water Quality Technical Memorandum, the California Statewide Groundwater Elevation Monitoring database identified eight groundwater monitoring wells within the Project footprint and in the immediate area several of these wells are in topographic proximity to each signal pole location. The well nearest the traffic pole location at Normandy Road recorded groundwater at 19.7 feet below the surface on September 24, 2015. This is the well located in the Sun City Regional Water Reclamation Facility. At the signal pole location at Murrieta Road, the nearest well is located 0.3 mile north, in a vacant lot on the northwest corner of Murrieta Road and Fireweed Street. On September 24, 2015, this well recorded a groundwater level of 35.8 feet below the surface. At the signal pole at Bradley Road, the nearest well is located 0.4 mile downstream on the south bank of the Salt Creek Flood Control Channel. On September 24, 2015, this well recorded groundwater at a depth of 44.2 feet below the surface. Finally, at the location of the proposed signal pole location at the intersection of Domenigoni Parkway and Searl Parkway, the nearest well, located on Arbol Road one mile east of the intersection, On September 29, 2015, this well recorded groundwater at a depth of 44.1 feet below the surface.

As illustrated by the recent groundwater levels discussed above and the shallow depths of grading required for construction, the Project is not expected to affect groundwater levels within the subject management zones or the groundwater basin in general. Likewise, construction and operation of the Project is not expected to affect groundwater quality within these zones or the larger groundwater basin. No impact would occur and no mitigation would be required.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Less Than Significant Impact. Design of the Project does not include alteration of the existing drainage pattern, or alteration of the course of any drainage, that would result in a substantial erosion or siltation on or off site. Proposed drainage crossings in the western segment include the Sun City Channel and Drainage 2 and Antelope Road; these crossings would be designed to allow low-flow water to pass under the trail while providing a stable surface for trail users. In the eastern segment, the Project would cross Drainage 1 at Domenigoni Parkway by extending the existing box culvert to accommodate the trail. The extension of this existing box culvert, as well as the crossings of the Sun City Channel and Salt Creek Channel between the I-215 and Antelope Road, would be designed to allow existing design flow to continue unimpeded.

As described previously, the conceptual drainage system of the Project would direct stormwater through pervious materials, including soil and existing grass, prior to discharge into the Salt Creek Channel, in a manner similar to existing conditions. Construction and operation of the Project would not substantially

alter the existing drainage patterns nor alter the course of a stream or river, and would not result in substantial erosion or siltation on- or off-site. Therefore, impacts would be less than significant and no mitigation would be required.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Less Than Significant Impact. As described previously, the proposed crossings of Sun City Channel, Salt Creek, and Drainage 1 would be designed such that existing design flows would not be impeded. Currently, neither Newport Road nor Domenigoni Parkway has continuous sidewalks, and stormflow is directed into the roadway, onto adjacent fields, or into Salt Creek Channel. The Project would introduce approximately 13.3 acres of net new impervious surface, but the Project would be designed to direct stormflow away from the roadways, and across pervious areas (e.g., decomposed granite) that would slow the velocity of sheetflow and result in a greater potential for percolation into the ground than the existing dirt road shoulders or hard-packed berm. The amount or volume of runoff water created by construction and operation of the Project would not substantially increase the rate or amount of stormwater surface runoff in a manner that would result in flooding on- or off-site. Therefore, impacts would be less than significant and no mitigation would be required.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant Impact. As noted above, the Project would not substantially alter the amount of runoff from the site. The Project would drain in a manner similar to the existing maintenance roadway, via culverted channels or as sheet flow across pervious decomposed granite surface pedestrian path, ruderal vegetation or non-native grassland and into the Salt Creek Channel, which was designed to contain a 100-year storm event. Therefore, the Project would result in less than significant impacts related to the capacity of existing and planned stormwater drainage systems. In addition, a NPDES General Construction permit and a SWPPP would be required to address sediment control during construction activities. Therefore, impacts would be less than significant and no mitigation would be required.

f) Otherwise substantially degrade water quality?

Less Than Significant Impact. As discussed in Checklist Response 3.9.2 (a) above, the Project is not expected to result in violations of water quality standards or objectives. Implementation of applicable BMPs during Project construction, and application of approved post-construction Low-Impact Development BMPs would avoid or minimize potential violations of water quality or waste discharge standards. Impacts would be less than significant and no mitigation would be required.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. The Project does not involve the construction of housing; therefore, no housing would be placed within the 100-year flood hazard area as result of the Project. No impact would occur.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Less Than Significant Impact. According to the Flood Insurance Rate Maps (FIRM) issued by the Federal Emergency Management Agency (FEMA) in 2008 and in 2014 as part of the National Flood Insurance Program (FIRM map panel numbers 06065C2055H [2014], 06065C2061G [2008], and

06065C2060H [2014]), most of the western segment of the Project lies within or slightly outside of Zone A, which is the 100-year floodplain of the Salt Creek Flood Control Channel, except for a portion of the channel beginning west of I-215 and ending at the Sun City Regional Water Reclamation Facility, which is mapped as Zone AE (FEMA 2008). Zone AE is also a 100-year floodplain, but the modifier “E” indicates that exact base flood elevations have been determined whereas, in Zone A, exact base level flood elevations have not been determined.

The eastern segment begins in Zone AE of the Salt Creek Flood Control Channel but, as it turns southeast to parallel Domenigoni Parkway, it rises above the floodplain until just past Searl Parkway where it enters the 100-year floodplain (Zone A) associated with the streams discharging from the canyons from the south and east (FIRM map panel numbers 06065C2085G [FEMA 2008] and 06065C2105G [FEMA 2008]). Refer to Figures 3-7A, Floodplain – Western Segment and 3-7B Floodplain – Eastern Segment.

Although the majority of the eastern segment of the Project would occur within Zone A along Domenigoni Parkway east of Searle Parkway, and north on and east of State Street, to the end of the trail at West Chambers Street (FEMA FIRM Panel 06065C2105G [2008]), the nature of the Project would neither impede nor contribute to flood flows. The trail would generally be located on the bank of the existing flood control channel and its level structure would generally match that of the original bank.

As further detailed in the *Location Hydraulic Study* (January 2017), it has been determined that the flood hazard and flood depths are unchanged as a result of the Project. Furthermore, and as also documented in the *Location Hydraulic Study*, the Project would not change the water surface elevation or boundaries of the mapped floodplain. Therefore, construction and operation of the Project would result in less-than-significant impacts to the 100-year floodplain.

i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less Than Significant Impact. According to the *City of Menifee General Plan EIR* (Menifee 2013b), parts of the City of Menifee are within existing dam inundation areas for three dams (East Dam, West Dam and Saddle Dam) at Diamond Valley Lake and for Lake Perris Dam. According to the *City of Hemet General Plan*, Figure 6.3, Dam Inundation Hazards, a portion of the proposed trail is located within a Dam Inundation Area of Diamond Valley Lake’s East Dam. Diamond Valley Lake’s inundation area covers approximately half of the City of Hemet, and extends to the southwest well beyond the City’s boundary. No levees occur within the area of the Project; therefore, no impacts would occur relative to failure of a levee.

As described above, the Project consists of the construction of a multi-use trail for pedestrian and bicycle use; no structures, including residential development, are proposed as part of the Project and no permanent employees would be located on-site. In the event of flooding or potential flooding of the trail, or other potentially unsafe conditions, the Project includes gates placed at the ends of each trail segment that would be closed, in coordination, by the respective city, Riverside County Regional Park and Open Space District, and RCFC&WCD to prevent trail access and protect the public. Therefore, the hazards posed by flooding, including flooding as a result of the failure of a levee or dam, is considered less than significant and no mitigation would be required.

j) Inundation by seiche, tsunami, or mudflow?

Less Than Significant Impact. The Project would not expose people or structures to inundation by tsunami or mudflow. The site is not near the coastline and would not be impacted by tsunami waves. The Project site is relatively flat and is not located near hills or slopes that would be subject to mudflows. No impacts relative to tsunami or mudflow would occur.

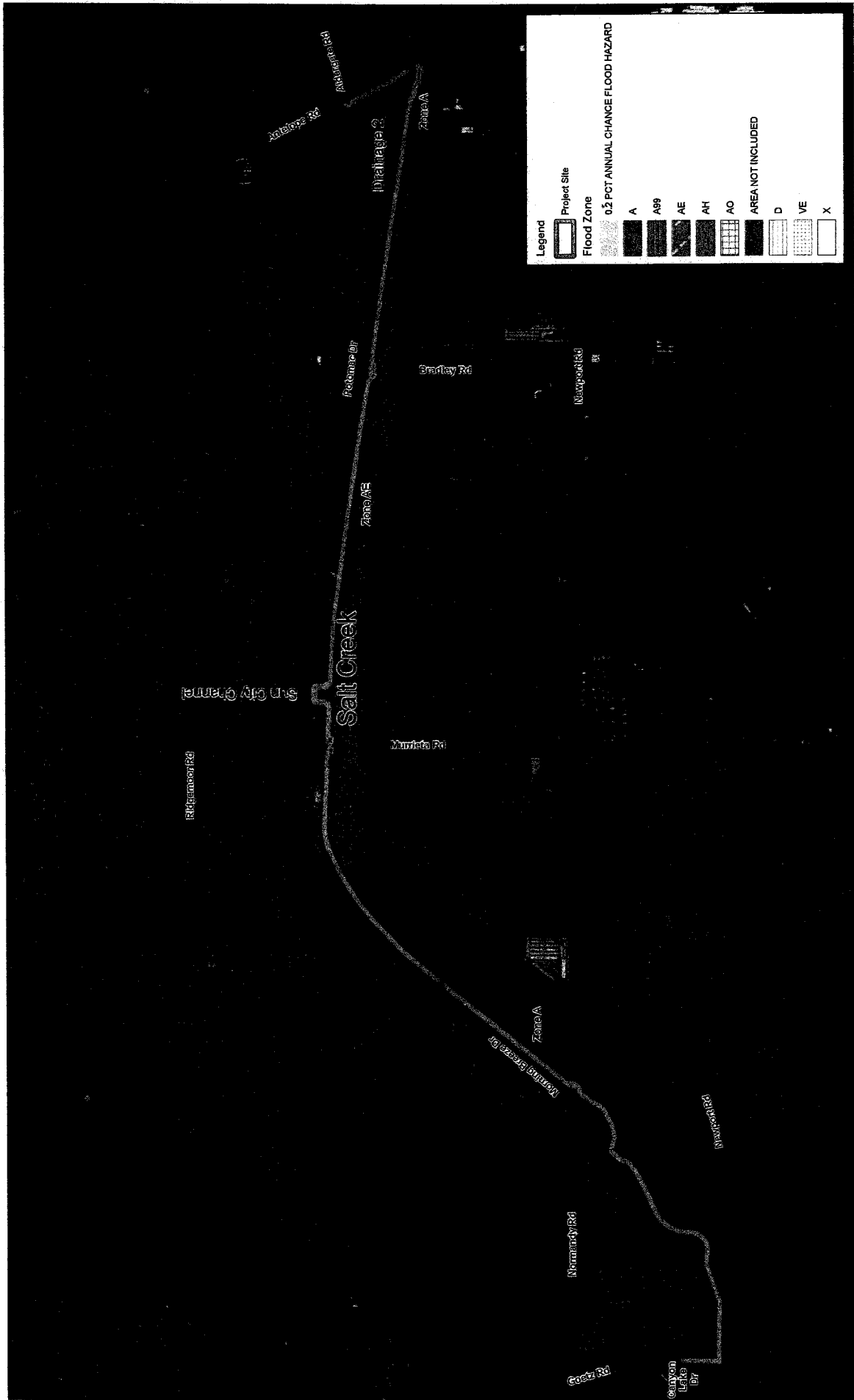
A seiche is a surface wave created when an inland body of water is shaken, usually by earthquake activity. Two waterbodies occur in proximity to the Project that have a slight potential to impact the Project as a result of seiche: Diamond Valley Lake and Canyon Lake/Railroad Reservoir. Diamond Valley Lake is approximately 0.8 mile south of the eastern segment, and water in the lake is contained on the north by hills extending up to over 300 feet above the water surface, and on the east by a containment wall extending approximately 50 feet above the water surface. Although a seiche resulting from earthquake activity is possible, inundation of the Project is not likely. Canyon Lake/Railroad Reservoir, approximately 0.7 miles west of western segment, is contained between the water and the Project by a park, parking lot, and Goetz Road. However, given the topography, inundation of the Project by a seiche at Canyon Lake/Railroad Reservoir would likely drain back into the Salt Creek Channel, and flooding, if any, would be temporary.

As stated above, in the event of flooding or potential flooding of the trail, or other unsafe conditions, the Project includes gates placed at the ends of each trail segment that would be closed, in coordination, by the respective city, Riverside County Regional Park and Open Space District, and RCFC&WCD to prevent trail access and protect the public. Therefore, the hazards posed by flooding, including inundation by seiche, are considered less than significant and no mitigation would be required.

3.9.3 Mitigation Measures

No mitigation measures are proposed.

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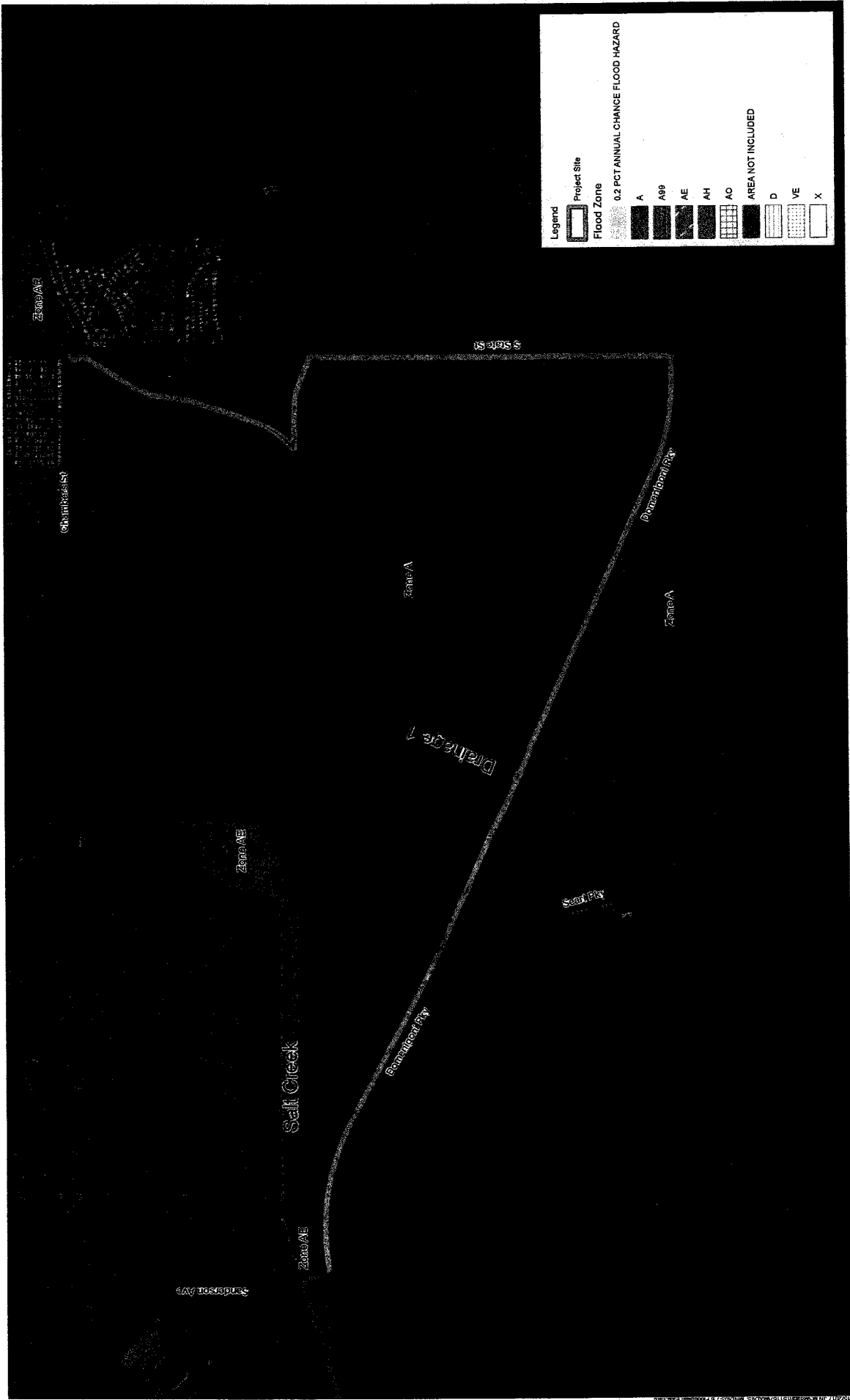


Salt Creek Trail Project

Floodplain (Western Segment)

Figure 3-7A

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Legend

Project Site

Flood Zone

0.2 PCT ANNUAL CHANCE FLOOD HAZARD

A

AE

AH

AC

AREA NOT INCLUDED

D

VE

X

Salt Creek Trail Project

Floodplain (Eastern Segment)

Figure 3-7B



Source: Riverside County, EIR/World Imagery

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3.10 Land Use and Planning

Information in this section is based on the *Salt Creek Trail Project Community Impact Assessment Technical Memorandum* prepared by POWER Engineers, Inc. (2016).

3.10.1 Environmental Setting

Existing Conditions and Surrounding Land Uses

The Project area consists of residential, business, institutional, transportation, and vacant land uses. There are no existing residential or business uses within the limits of the Project-related improvements. The Project alignment occurs through properties controlled by RCFC&WCD, City of Hemet, City of Menifee, MWD, Caltrans, and private land owners.

Western segment

The western segment of the Project is located in the City of Menifee from the intersection of Goetz Road and Canyon Lake Drive north of Newport Road to the intersection of Antelope Road and Aldergate Drive east of I-215 (refer to Figure 2-3). The proposed trail would be predominantly located on an existing dirt maintenance road on the north side of the Salt Creek Channel. The western segment consists of vacant land associated with open space and floodplain areas. Other land uses include transportation uses along Goetz Road and Antelope Road, at the proposed roadway crossings at Normandy Road, Murrieta Road, Bradley Road, and I-215. At the easternmost portion of the western segment, the proposed trail trends under the Salt Creek undercrossing bridge structure associated with I-215. The western segment of the Project is surrounded by open space, recreational areas, single-family residences, businesses, commercial uses, and public facilities.

Eastern Segment

The eastern segment of the Project is located in the City of Hemet from the intersection of Sanderson Avenue and Domenigoni Parkway to the intersection of State Street and Chambers Street (refer to Figure 2-4). The eastern segment consists of vacant land uses, no structures, roadways, or sidewalk improvements are located along the eastern segment of the Project. The eastern segment is primarily comprised of vacant land along Domenigoni Parkway and vacant MWD property along State Street. The northern portion of the eastern segment includes an existing dirt maintenance road on vacant land owned by the City of Hemet associated with an unnamed drainage feature. The eastern segment of the Project is surrounded by open space, recreational areas, schools, and single-family residences.

Existing General Plan and Zoning

Western segment

According to the City of Menifee General Plan Land Use Map, Exhibit LU-2, the land use designations for the eastern portion of the western segment, from Normandy Road to I-215, is designated OS-R and the land use designation for the western portion of this segment, from Goetz Road to Normandy Road (old Newport Road), is designated as part of the Audie Murphy Ranch Specific Plan. According to the City of Menifee Zoning (2008), zoning along the western segment of the trail is zoned W-1 (eastern portion) and SP Zone (western portion). According to the Audie Murphy Ranch Specific Plan, the site is zoned PA 41, Floodplain Riparian Area.

Eastern Segment

According to the City of Hemet General Plan Land Use Plan, Figure 2-1, the eastern segment of the Project is located within areas designated as Open Space (OS), Low Density Residential (LDR), and Mixed-Use (MU). According to the City of Hemet Official Zoning Map (2015), the eastern segment is

zoned as PCD 79-93 (Planned Community Development), R-A (Residential Agricultural), OS (Open Space), R-3 (Multiple Family Residential), and SP 88-19 (Specific Plan).

3.10.2 Impact Assessment

Would the Project:

a) Physically divide an established community?

No Impact. The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and outlying areas. A majority of the Project would be constructed along an existing maintenance and service roadway adjacent to the Salt Creek Channel, and as a result, the trail would not create new barriers that could potentially divide or disrupt existing established neighborhoods / communities. No impact would occur and no mitigation would be required.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. As previously discussed, the Project would provide a multi-use trail to provide a corridor for alternative modes of transportation, including non-motorized uses. The Project would be consistent with both the Menifee and Hemet General Plans as the Project is a planned recreation use. The *City of Menifee General Plan* identifies the Salt Creek Trail in both the Open Space and Conservation Element and the Transportation and Traffic Element. The goal of OSC-2 in the Open Space and Conservation Element is to provide, "A comprehensive network of hiking, biking, and equestrian recreation trails that do not negatively impact the natural environment or cultural resources." The *City of Hemet General Plan 2030* identifies the Project in its Recreation and Trails Element, referencing the trail as an, "Offroad trail that runs along Salt Creek and connects to the County Regional Trail System on the west and Pepper Creek Trail on the east." In addition, the Project has been identified in the *Riverside County General Plan Circulation Element's Bikeways and Trails Plan* and in SCAG's 2016 RTP/SCS. The Project would be compatible with the local and regional plans and policies because the proposed Salt Creek Trail is one of five essential backbone trails in the Riverside County Integrated Project and is a major east/west trail for the Western Riverside County Trail System, it would provide an alternative to automobile travel between home and work, and would provide access to area schools, businesses, parks, and other recreational amenities for pedestrians and cyclists. No impact would occur and no mitigation would be required.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. As stated above under Checklist Response 3.4.2 (f), the Project was reviewed to determine consistency with the MSHCP. The western segment of the BSA is located within the Sun City/Menifee Area Plan of the MSHCP, and the eastern segment of the BSA is located within the San Jacinto Valley Area Plan of the MSHCP. Neither segment is located within any Criteria Cells, or cores, or linkages identified within the MSHCP; however, the eastern segment of the BSA is located approximately 150 feet northeast of Existing Core J, which is separated from the eastern segment of the trail by Domenigoni Parkway. The western segment of the trail is partially located within designated Public/Quasi-Public Lands, which are included within the MSHCP Conservation Area.

The Project is a Covered Activity, under Section 7.4.2, Conditionally Compatible Uses, of the MSHCP and Project is considered conditionally compatible with the overall conservation goals and objectives of

the MSHCP and is covered within the MSHCP Conservation Area subject to the guidelines and criteria incorporated in Section 7.4.2. As depicted in Figure 7-3 of the MSHCP, the Project is shown as an adopted planned regional trail. Section 7.4.2 states that the covered public access uses within the MSHCP Conservation Area would be comprised of trails, facilities, and passive recreational activities. Construction of and improvements to these trails would be covered under the MSHCP.

All four hydrogeomorphic features observed within the BSA qualify as riparian/riverine habitat as defined under Section 6.1.2 of the MSHCP. Therefore, any alteration or loss of riparian/riverine habitat that may occur as a result of the Project would require the preparation of a DBESP analysis to ensure the replacement of any lost functions and values associated with all four hydrogeomorphic features. The DBESP analysis is separate from any regulatory approvals/permitting by the USACE, RWQCB, and CDFW. The extent of the riparian/riverine habitat on the Project site is synonymous with the jurisdiction of CDFW.

Separate from the requirements of the MSHCP, Riverside County established a boundary for protecting the Stephens' kangaroo rat (*Dipodomys stephensi*), a federally endangered and State threatened species that is not covered under the MSHCP. SKR is protected by the SKR Habitat Conservation Plan (SKR HCP) (County Ordinance No. 663.10). The Project is located within the Fee Area for SKR. However, Section 10(d) of the Ordinance specifically exempts development of any parcel used by local, State or federal entities for governmental purposes (i.e., public works, schools, government infrastructure) from payment of mitigation fees. As such, this Project is exempt from the SKR fee payment (Section 10(d) of Riverside County Ordinance 663.10). No impact would occur and no mitigation would be required.

3.10.3 Mitigation Measures

No mitigation measures are proposed.

3.11 Mineral Resources

Information in this section is based on the *City of Menifee General Plan, Open Space and Conservation Element* (Menifee 2013) and the *City of Hemet General Plan, Open Space and Conservation Element* (Hemet 2012).

3.11.1 Environmental Setting

The State Mining and Reclamation Act of 1975 identifies and protects California's mineral resources. The State of California Geological Survey Mineral Resources Project provides the most recent and accurate information about mineral resources. Based on an assessment of local and regional mineral deposits, the State of California assigns different Mineral Resource Zones (MRZs). These include:

- **MRZ 1:** Areas where adequate information indicates that no significant mineral deposits are present or likely to be present.
- **MRZ 2:** Areas where significant mineral deposits are present or likely to be present and development should be controlled.
- **MRZ 3:** Areas where the significance of mineral deposits cannot be determined from the available data.

Western Segment

According to the *City of Menifee Open Space and Conservation Element* (Menifee 2013), the City is nearly entirely designated as MRZ 3, except for a small area along Murrieta Road, north of McCall Boulevard, which is designated MRZ 1. This means that, based on available information, the City of Menifee has no known significant mineral deposits.

Eastern Segment

According to the *City of Hemet Open Space and Conservation Element* (Hemet 2012), areas along the eastern and southern end of the City have not been studied under the State Mining and Reclamation Act Mineral Land Classification system, the balance of the Hemet is designated as MRZ-3. MRZ-3 includes those areas where geologic evidence indicates that mineral deposits exist or likely exist, but the significance of these deposits has not been determined (Hemet 2012). In addition, some minerals are present which have the potential to have local significance. Historically, limestone, serpentine, and sand and gravel were mined in the Bautista Canyon, Diamond Valley, and the Salt Creek and San Jacinto riverbeds, respectively.

Areas near the western portion of the eastern segment appear to have been associated with mining activities between 1942 and 1953 until the construction of Domenigoni Parkway (sometime between 1984 and 1996); however, no mining activities exist in or near the Project area.

3.11.2 Impact Assessment

Would the Project:

- a) **Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

No Impact. As indicated above, the City of Menifee and the City of Hemet are designated primarily as being located in MRZ 3 zones, defined as areas where mineral deposits are likely to exist; however, the significance of those mineral deposits have not yet been determined. The Project consists of construction of a pedestrian and bicycle trail located primarily on an existing dirt maintenance road. Mineral resources are not expected to be located within the Project footprint due to the extensive ground disturbance and surrounding development. Therefore, the Project would not result in the loss of availability of a known mineral resource. No Impact would occur and no mitigation would be required.

- b) **Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?**

No Impact. There are no known locally-important mineral resource recover sites identified on the Project site or immediate area, as delineated in the City of Menifee and the City of Hemet General Plan. Therefore, the Project would not result in the loss of availability of a known mineral resource or in the availability of any locally important mineral resource recovery site. No Impact would occur and no mitigation would be required.

3.11.3 Mitigation Measures

No mitigation measures are proposed.

3.12 Noise

Information in this section is based on the *Salt Creek Trail Project – Noise Technical Memorandum* (Michael Baker International 2016c).

3.12.1 Environmental Setting

Regulatory Setting

State of California

The State Office of Planning and Research Noise Element Guidelines include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The Noise Element Guidelines contain a land use compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the Community Noise Equivalent Level (CNEL). The guidelines also present adjustment factors that may be used to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

City of Menifee General Plan

The California Government Code requires that a noise element be included in the general plan of each county and city in the State. The City of Menifee General Plan Noise Element establishes goals and policies for limiting noise generated from future projects, as well as means to abate existing noise problems. The primary function of the Noise Element is to ensure that considerations of noise are incorporated into the land use planning and decision-making process. The following Noise Element goals and policies applicable to the Project are presented below:

Goal N-1: Noise-sensitive land uses are protected from excessive noise and vibration exposure.

Policy N-1.1: Assess the compatibility of proposed land uses with the noise environment when preparing, revising, or reviewing development project applications.

Policy N-1.2: Require new projects to comply with the noise standards of local, regional, and State building code regulations, including but not limited to the City's Municipal Code, Title 24 of the California Code of Regulations, the California Green Building Code, and subdivision and development codes.

Policy N-1.3: Require noise abatement measures to enforce compliance with any applicable regulatory mechanisms, including building codes and subdivision and zoning regulations, and ensure that the recommended mitigation measures are implemented.

Policy N-1.7: Mitigate exterior and interior noises to the levels listed in the Table 3-12, to the extent feasible, for stationary sources adjacent to sensitive receptors.

TABLE 3-12 STATIONARY SOURCE NOISE STANDARDS

10:00 p.m. to 7:00 a.m.	40 L _{eq} (10 minute)	45 L _{eq} (10 minute)
7:00 a.m. to 10:00 p.m.	55 L _{eq} (10 minute)	65 L _{eq} (10 minute)

Note: Menifee General Plan, Table N-1 Stationary Source Noise Standards.

Source: Michael Baker International 2016c.

Policy N-1.15: Employ noise mitigation practices and materials, as necessary, when designing future streets and highways, and when improvements occur along existing road segments. Mitigation measures should emphasize the establishment of natural buffers or setbacks between the arterial roadways and adjoining noise-sensitive areas.

Policy N-1.16: Collaborate with transportation providers, including airport owners, the Federal Aviation Administration, Caltrans, SCAG, neighboring jurisdictions, and railroad owners and operators, to prepare, maintain, and update transportation-related plans that minimize noise impacts and identify appropriate mitigation measures.

Policy N-1.20: Adhere to any applicable Riverside County ALUC land use compatibility criteria, including density, intensity, and coverage standards.

City of Menifee Municipal Code

Chapter 9.09, *Noise Control Regulations* of the City of Menifee Municipal Code (Menifee Municipal Code) is intended to establish city wide standards regulating noise. It is not intended to establish thresholds of significance for the purpose of any analysis required by the CEQA and no such thresholds are hereby established.

Section 9.09.030, *Construction-Related Exemptions* may be requested from the standards set forth in Section 9.09.040 or 9.09.060 of this Chapter and may be characterized as construction-related, single event or continuous events exceptions.

- (A) Private construction projects, with or without a building permit, located one-quarter of a mile or more from an inhabited dwelling.
- (B) Private construction projects, with or without a building permit, located within one-quarter of a mile from an inhabited dwelling, provided that:
 - (1) Construction does not occur between the hours of 6:00 p.m. and 6:00 a.m. the following morning during the months of June through September; and
 - (2) Construction does not occur between the hours of 6:00 p.m. and 7:00 a.m. the following morning during the months of October through May.
- (C) *Construction-related exceptions.* A construction-related exception shall be considered either a minor temporary use or a major temporary use as defined in Chapter 9.06 of this code. An application for a construction-related exception shall be made using the temporary use application provided by the Community Development Director in Chapter 9.06 of this code. For construction activities on Sunday or nationally recognized holidays, Section 8.01.010 shall prevail.

Section 9.09.050, *General Sound Level Standards* states no person shall create any sound, or allow the creation of any sound, on any property that causes the exterior and interior sound level on any other occupied property to exceed the sound level standards set forth in Table 3-12.

In addition to the general sound level standards set forth in Section 9.09.050, Section 9.09.070, *Special Sound Sources Standards* are also subject to the following additional standards, the failure to comply with which constitute separate violations of this chapter.

- (A) *Motor vehicles.*
 - (1) *Off-highway vehicles.*
 - (a) No person shall operate an off-highway vehicle unless it is equipped with a USDA qualified spark arrester and a constantly operating and properly maintained muffler. A muffler is not considered constantly operating and properly maintained if it is equipped with a cutout, bypass or similar device.

(b) No person shall operate an off-highway vehicle unless the noise emitted by the vehicle is not more than 96 A-weighted decibels (dBA) if the vehicle was manufactured on or after January 1, 1986 or is not more than 101 dBA if the vehicle was manufactured before January 1, 1986. For purposes of this division, emitted noise shall be measured a distance of 20 inches from the vehicle tailpipe using test procedures established by the Society of Automotive Engineers under Standard J-1287.

(B) *Power tools and equipment.* No person shall operate any power tools or equipment between the hours of 7:00 p.m. and 7:00 a.m. the following morning during the months of June through September and 6:00 p.m. and 7:00 a.m. the following morning during the months of October through May such that the power tools or equipment are audible to the human ear inside an inhabited dwelling other than a dwelling in which the power tools or equipment may be located. No person shall operate any power tools or equipment at any other time such that the power tools or equipment are audible to the human ear at a distance greater than 100 feet from the power tools or equipment.

City of Hemet General Plan

The City of Hemet General Plan (2012a) Public Safety Element has developed the following noise and land use compatibility designations: normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable. Using these designations, the City of Hemet has established both interior and exterior noise standards. Hemet’s Land Use Compatibility Standards are presented in Table 3-13, (Table 6.3 in the Hemet General Plan).

TABLE 3-13 LAND USE COMPATIBILITY STANDARDS

	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential	50 - 60	55 - 70	70 - 75	75 - 85
Transient Lodging - Motel, Hotels	50 - 65	60 - 70	70 - 80	80 - 85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 70	60 - 70	70 - 80	80 - 85
Auditoriums, Concert Halls, Amphitheaters	NA	50 - 70	65 - 85	NA
Sports Arenas, Outdoor Spectator Sports	NA	50 - 75	70 - 85	NA
Playgrounds, Neighborhood Parks	50 - 70	NA	67.5 - 75	75 - 85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 - 75	NA	67.5 - 77.5	75 - 85
Office Buildings, Business Commercial and Professional	50 - 70	67.5 - 77.5	75 - 85	NA
Industrial, Manufacturing, Utilities, Agriculture	50 - 75	70 - 80	75 - 85	NA

NA: Not Applicable

Normally Acceptable – Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise requirements.

Conditionally Acceptable – New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design.

Normally Unacceptable – New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable – New construction or development clearly should not be undertaken.

Source: Michael Baker International 2016c.

Land use compatibility standards for exterior and interior noise are shown in Table 3-14, Land Use Compatibility Standards for Exterior and Interior Noise (Table 6.4 of the Hemet General Plan). These standards are maximum interior noise levels for new residential development. Insulation and design features must be employed to reduce interior ambient noise levels to these levels.

TABLE 3-14 LAND USE COMPATIBILITY STANDARDS FOR EXTERIOR AND INTERIOR NOISE

	Exterior (dBA)	Interior (dBA)
Residential and mixed use with residential component	65	45
School classrooms	65	45
School playgrounds	70	-
Libraries	-	50
Hospitals, convalescent homes-sleeping areas	-	40
Passive recreation areas	65	-
Active recreation areas	70	-
Commercial and industrial areas	70	-
Office areas	-	50

Notes:

CNEL = community noise equivalent level; dBA = A-weighted decibel; - = not applicable/not available.

The acceptable interior noise level for other uses depends upon the specific nature of the indoor activity.

Source: Michael Baker International 2016c.

The City of Hemet applies a second set of standards when planning and making development decisions to ensure that stationary noise sources (e.g., HVAC units, industrial operations) do not adversely affect noise-sensitive land uses. These hourly and maximum levels (expressed in L_{eq} and L_{max}) for stationary noise sources are designed to protect noise-sensitive land uses adjacent to stationary sources from excessive and continuous noise. Table 3-15, Noise Level Performance Standards for Non-transportation Noise Sources (Table 6.5 of the Hemet General Plan) summarizes stationary source noise standards. These standards represent the acceptable exterior noise levels at the sensitive receptor's property line.

TABLE 3-15 NOISE LEVEL PERFORMANCE STANDARDS FOR NON-TRANSPORTATION NOISE SOURCES

Noise Level Metric	Exterior (dBA)	Interior (dBA)
Hourly Average Level (L_{eq})	60 dBA	45 dBA
Maximum Equivalent Levels (L_{max})	75 dBA	65 dBA

Notes: Each of the noise levels specified shall be lowered by 5 decibels for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings). The noise standard is to be applied at the property lines of the affected land use.

Source: Michael Baker International 2016c.

The following Noise Element goals and policies applicable to the Project are presented below:

Goal PS-11: Manage noise levels through land use planning and development review.

Policy PS-11.1: Noise Standards

Enforce noise standards to maintain acceptable noise limits and protect existing areas with acceptable noise environments.

Policy PS-11.3: Evaluate Noise

Evaluate potential noise conflicts for individual sites and projects, and require mitigation of all significant noise impacts (including construction and short-term noise impacts) as a condition of project approval.

Policy PS-11.4: Protect Noise-Sensitive Uses

Protect noise-sensitive uses from new noise sources.

Goal PS-12: Minimize noise conflicts from transportation sources and airports.

Policy PS-11.4: Traffic Noise

Minimize noise conflicts between current and proposed land uses and the circulation network by encouraging compatible land uses around critical roadway segments with higher noise potential.

Goal PS-13: Minimize noise conflicts with stationary noise generators.

Policy PS-13.2: New Sensitive Uses

Restrict the location of sensitive land uses near major noise sources to achieve the standards presented in Table 6.4.

Policy PS-13.2: Prevent Encroachment

Prevent the encroachment of noise sensitive land uses into areas designated for use by existing or future noise generators.

City of Hemet Municipal Code

Chapter 30, Article II, Section 30-32(33) of the City of Hemet Municipal Code (Hemet Municipal Code) permits construction activities between the hours of 6:00 a.m. and 6:00 p.m. during the months of June through September and between the hours of 7:00 a.m. and 6:00 p.m. during the months of October through May. Exceptions to these standards may be granted only by the City building official and/or the City Council.

Chapter 53, Article I, Section 53-4, Noise of the Hemet Municipal Code prohibits loud, unnecessary, and unusual noise stating that no person shall willfully make or continue, or cause to be made or continued, any loud, unnecessary, and unusual noise which is greater than the level permissible for the applicable zone or which unreasonably disturbs the peace or quiet of any neighborhood or which would cause discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area.

Existing Noise Sources

Stationary Sources

The Project area surrounding the western segment of the trail is highly urbanized, consisting of a mix residential, commercial, recreational, and public/institutional uses while the Project area surrounding the eastern segment of the trail includes residential, educational, recreational, and open space uses. The primary sources of stationary noise in the Project vicinity are urban-related activities (i.e., mechanical equipment, parking areas, and pedestrians). The noise associated with these sources may represent a single-event noise occurrence or short-term or long-term continuous noise.

Existing Mobile Sources

The majority of the existing noise within the western segment of the trail is generated from vehicle sources along Goetz Road, Newport Road, and I-215 in the City of Menifee. According to the Menifee General Plan, the I-215 is a major regional traffic thoroughfare with Goetz Road as a major north-south connector. Newport Road is a major east/west arterial road in the City of Menifee, and as a result, generates the most noise. These travel corridors typically are 70 and above dBA CNEL (refer to Appendix E, Existing Noise Contours, City of Menifee General Plan). The majority of the existing noise within the eastern segment of the trail is generated from vehicle sources along Domenigoni Parkway, and State Street in the City of Hemet. Based on the Hemet General Plan, existing traffic noise levels were modeled at 100 feet from roadway centerlines. Traffic noise levels along Domenigoni Parkway typically average to 68.8 dBA CNEL while noise levels along State Street are 64.1 dBA CNEL.

Sensitive Receptors

Certain land uses are particularly sensitive to noise, including schools, hospitals, rest homes, long-term medical and mental care facilities, and parks and recreation areas. Residential areas are also considered noise sensitive, especially during the nighttime hours. Existing sensitive receptors located in the Project vicinity surrounding the two segments include single-family residential uses, parks, schools, and places of worship. Sensitive receptors are listed in Table 3-16, Sensitive Receptors.

TABLE 3-16 SENSITIVE RECEPTORS

Western Segment				
Type	Location	Distance (feet)	Direction	Address
Residential	Residential Uses	Adjoining	North	Residential neighborhood of La Ladera Road and Normandy Road
		Adjoining	East	Residential neighborhood east of Murrieta Road
		450	South	Residential neighborhood south of Salt Creek Channel
		250	West	Residential neighborhood west of Goetz Road
	Eastport Park	175	West	31512 Railroad Canyon Road, Canyon Lake, CA 92587
Parks	E. L. Pete Peterson Park	550	South	29621 Park City Avenue, Menifee, CA 92584
	La Ladera Park	1,100	Northwest	29629 La Ladera Road, Menifee, CA 92584
	Lazy Creek Recreational Center	1,405	South	26480 Lazy Creek Road, Menifee, CA 92586
	Water Conservation Park	1,760	Northwest	Along Canyon Lake Drive N, Canyon Lake, CA 92587
	Outrigger Park	3,440	Northwest	23950 Outrigger Drive, Canyon Lake, CA 92587
	Steel Head Park	3,780	Northwest	Along Steel Head Drive, Canyon Lake, CA 92587
	Lyle Marsh Park	4,500	South	27050 School Park Drive, Menifee, CA 92584
	Evans Park	4,505	Northwest	Along Canyon Lake Drive N, Canyon Lake, CA 92587

	Indian Beach Park	4,700	West	Along Continental Drive, Canyon Lake, CA 92587
	Lions Park	4,800	West	Along Yellow Feather Drive, Canyon Lake, CA 92587
Schools	Ridgemoor Elementary School	2,580	North	25455 Ridgemoor Road, Sun City, CA 92586
	Good Shepherd Lutheran School	2,660	South	26800 Newport Road, Menifee, CA 92584
	Herk Bouris Elementary School	3,730	South	34257 Kalanchoe Road, Lake Elsinore, CA 92532
	Chester W Morrison Elementary	3,950	South	30250 Bradley Road, Menifee, CA 92584
Places of Worship	The Church of Jesus Christ of Latter-day Saints	1,250	South	29725 Bradley Road, Sun City, CA 92586
	Sun City United Methodist Church	1,300	North	30220 Carmel Road, Sun City, CA 92586
	Church of Christ of the Valley	1,485	North	29035 Del Monte Drive, Menifee, CA 92586
	First Baptist Church-Sun City	1,575	North	29029 Murrieta Road, Sun City, CA 92586
	Sun City Seventh-Day Adventist	1,955	South	29885 Bradley Road, Sun City, CA 92586
	Canyon Lake Community Church	2,010	West	30515 Railroad Canyon Road, Canyon Lake, CA 92587
	Grace Evangelical Free Church	3,440	Northwest	29720 Goetz Road, Menifee, CA 92587
Eastern Segment				
Residential	Residential Uses	115	East	Residential neighborhood along State Street
		165	North	Residential neighborhood along Chambers Street
Parks	Diamond Valley Lake Community Park	1,235	South	1801 Angler Avenue, Hemet, CA 92543
	Brubaker Park	2,625	Northwest	Along Mustang Way, Hemet, CA 92545
	McSweeney Park	3,555	South	Along McSweeney Parkway, Hemet, CA 92543
Schools	Diamond Valley Middle School	240	Northwest	291 W Chambers Street, Hemet, CA 92543
	McSweeney Elementary School	1,135	West	451 Chambers Street, Hemet, CA 92543
	Hemet Unified School District	1,845	Northwest	3401 Mustang Way, Hemet, CA 92545
	West Valley High School	1,845	Northwest	3401 Mustang Way, Hemet, CA 92545
	Harmony Elementary School	3,920	Northwest	1500 S Cawston Avenue, Hemet, CA 92545

Note:

- Distances are measured from the exterior Project boundary only and not from individual activity areas within the interior of the Project site.

Source: Michael Baker International 2016c.

3.12.2 Impact Assessment

Would the Project:

- a) **Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

Less Than Significant Impact with Mitigation Incorporated. It is difficult to specify noise levels that are generally acceptable to everyone; what is annoying to one person may be unnoticed by another. Standards may be based on documented complaints in response to documented noise levels, or based on studies of the ability of people to sleep, talk, or work under various noise conditions. However, all such studies recognize that individual responses vary considerably. Standards usually address the needs of the majority of the general population.

Construction activities generally are temporary and have a short duration, resulting in periodic increases in the ambient noise environment. Construction of the Project would occur over approximately 10 months, beginning in February 2019 and to be completed by December 2019. Construction activities would include grading, paving, decomposed granite placement, concrete improvements, and traffic signal installation. Ground-borne noise and other types of construction-related noise impacts typically occur during the initial site preparation. This phase of construction has the potential to create the highest levels of noise; however, it is generally the shortest of all construction phases. Typical noise levels generated by construction equipment are shown in Table 3-17, Maximum Noise Levels Generated by Construction Equipment. Operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be due to random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts).

Sensitive receptors closest to the Project site include residential uses adjoining the western segment of the trail and residential uses approximately 115 feet east of the eastern segment of the trail. Additionally, Eastport Park is located approximately 175 feet west of the western segment of the trail and Diamond Valley Middle School is located approximately 240 feet northwest of the eastern segment of the trail. These sensitive uses may be exposed to elevated noise levels during Project construction. However, as the Project involves construction of a trail, construction noise would not be concentrated in one location for extended periods of time. Construction equipment would move in a linear fashion along the proposed trail alignment.

Pursuant to the Menifee Municipal Code and Hemet Municipal Code, all construction activities may occur between the hours of 6:00 a.m. and 6:00 p.m. during the months of June through September and between the hours of 7:00 a.m. and 6:00 p.m. during the months of October through May. These permitted hours of construction are required in recognition that construction activities undertaken during daytime hours are a typical part of living in an urban environment and do not cause a significant disruption. Implementation of mitigation measure NOI-1 would ensure that Project construction complies with allowable hours for construction noise and requires construction equipment to be equipped with properly operating and maintained mufflers and other State required noise attenuation devices to further minimize impacts. With implementation of mitigation measure NOI-1 a less than significant noise impact would result from construction activities.

TABLE 3-17 MAXIMUM NOISE LEVELS GENERATED BY CONSTRUCTION EQUIPMENT

Concrete Saw	20	90
Concrete Mixer Truck	40	79
Backhoe	40	78
Dozer	40	82
Excavator	40	81
Forklift	40	78
Paver	50	77
Roller	20	80
Tractor	40	84
Water Truck	40	80
Grader	40	85
General Industrial Equipment	50	85

Note:

1. Acoustical Use Factor (percent): Estimates the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.

Source: Michael Baker International 2016c.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. Project construction can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

The types of construction vibration impact include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. The vibration produced by construction equipment is illustrated in Table 3-18.

TABLE 3-18 TYPICAL VIBRATION LEVELS FOR CONSTRUCTION EQUIPMENT

Large bulldozer	0.191	0.009
Loaded trucks	0.164	0.008
Small bulldozer	0.006	0.0003
Jackhammer	0.075	0.004

Notes:

1. Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006. Table 12-2.
2. Calculated using the following formula:

$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$$

where: PPV (equip) = the peak particle velocity in inch per second of the equipment adjusted for the distance

PPV (ref) = the reference vibration level in inch per second from Table 12-2 of the Federal Transit Administration Transit Noise and Vibration Impact

Assessment Guidelines

D = the distance from the equipment to the receiver

Source: Michael Baker 2016c.

The nearest structure to the Project site includes residential uses adjoining the western segment of the trail and residential uses approximately 115 feet east of the eastern segment of the trail. Groundborne vibration decreases rapidly with distance. On the eastern segment, residences are adjacent to the proposed trail, as well as many residents on the opposite side of State Street and Chambers Street near the intersection. As indicated in Table 3-18, based on the Federal Transit Administration data, vibration velocities from typical heavy construction equipment operation that would be used during Project construction range from 0.006 to 0.191 inch-per-second peak particle velocity (PPV) at 15 feet from the source of activity, and would range from 0.0003 to 0.009 inch-per-second PPV at 115 feet. With regard to the Project, groundborne vibration would be generated primarily during grading activities on-site and by off-site haul-truck travel. Although the nearest existing residential uses are located within 15 feet north of the western segment of the trail, the proposed construction activities would not be capable of exceeding the 0.2 inch-per-second PPV significance threshold for vibration, as construction activities would be limited and would not be concentrated within 15 feet of the adjacent structures for an extended period of time. Therefore, vibration impacts would be less than significant and no mitigation measures would be required.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact.

Operational Noise Sources

Off-Site Mobile Noise Impacts

The Project involves a multi-use trail along the Salt Creek Channel within the cities of Hemet and Menifee. The trail would provide a corridor for alternative modes of transportation, reducing congestion on local and regional highways, improving public health while improving safety by decreasing bicycle and pedestrian fatalities, consistent with the *Menifee General Plan* Circulation Element and the *Hemet General Plan* Circulation Element. The Project would not result in off-site mobile noise impacts, since it is not considered a trip generating land use project and the traffic would not increase with implementation

of the Project. In addition, the Project is anticipated to result in beneficial long-term noise effects, as it would result in reduced motorized vehicle trips and improve connectivity in the Project area for alternative modes of transportation. Although the Project may result in a nominal number of trips associated with occasional maintenance, the impact of these trips would be negligible. Therefore, impacts would be less than significant and no mitigation would be required.

Long-Term Stationary Noise Impacts

Upon Project completion, noise in the Project area would not increase. The Project involves construction of a dual track trail alignment consisting of a multi-use pathway adjacent to a natural surface pedestrian trail. The Project would serve a variety of user groups with a wide range of interests and abilities ranging from casual pedestrian and family use to advanced cyclists, commuters, runners and hikers. The Project would not generate any stationary source noise impacts. Therefore, no impacts would occur and no mitigation would be required.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact with Mitigation Incorporated. Refer to Checklist Response 3.12.2 (a), above. With implementation of mitigation measure NOI-1 a less than significant noise impact would result from construction activities.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The nearest airport is the Hemet-Ryan Airport, located approximately 1.5 miles to the northwest of the eastern segment of the Project, whereas the March Air Reserve Base/Inland Port Airport is located approximately 11.5 miles north of the western segment of the Project. The Project involves construction and operation of a multi-use trail, and as a result would not involve exposure of people residing or working in the Project area to excessive noise levels associated with aircraft. Therefore, aviation-related noise impacts are less than significant and no mitigation would be required.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The Project is not located within the vicinity of a private airstrip or related facilities. The Skylark Field Airport is located approximately 4.7 miles to the southwest of the Project site. Therefore, no impacts would occur and no mitigation would be required.

3.12.3 Mitigation Measures

NOI-1 Prior to initiation of construction, the County of Riverside shall ensure that the following measures are incorporated into construction contract documents:

- All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other State required noise attenuation devices.
- A construction notice shall be mailed to residents within a 150-foot radius of the Project and shall indicate the dates and duration of construction activities, as well as provide a contact name and a telephone number where residents can inquire about the construction process and register complaints.
- Construction haul routes shall be designed to avoid noise sensitive uses (e.g., residences, schools).

- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.
- Construction equipment staging areas shall be located away from adjacent sensitive receptors.

3.13 Population and Housing

Information in this section was obtained from the United States Census Bureau, Quick Facts, City of Hemet (US Census, Hemet 2016) and United States Census Bureau, Quick Facts, City of Menifee (US Census, Menifee 2016).

3.13.1 Environmental Setting

The Project alignment would occur within the cities of Menifee and Hemet totaling approximately 7.9 miles. The Project area consists of residential, business, institutional, transportation, and vacant land uses. There are no existing residential or business uses within the limits of the Project-related improvements. Surrounding land uses consists of open spaces, recreational areas, single-family residences, businesses, commercial uses, industrial uses, and public facilities.

According to the United States Census Bureau's Quick Facts, as of July 1, 2015 the City of Hemet's population was estimated at 83,861, as of April 1, 2010 the number of housing units in the City was 35,305 with an average of 2.63 persons per household (2010-2014) (US Census, Hemet 2016). The City of Menifee's population was estimated at 87,174, as of April 1, 2010 the number of housing units in the City was 30,269 with an average of 3.02 persons per household (2010-2014) (US Census, Menifee 2016).

3.13.2 Impact Assessment

Would the Project:

- a) **Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

No Impact. The Project would provide a multi-use trail to provide a corridor for alternative modes of transportation, including non-motorized uses. The Project would not include the construction of homes or businesses, nor would it extend roads into previously undeveloped areas or areas that are limited in potential for growth due to lack of transportation infrastructure. Therefore, no direct or indirect growth would occur as a result of the Project and no mitigation would be required.

- b) **Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?**

No Impact. No housing currently exists on the Project site. Therefore, the Project would not displace any existing housing necessitating the construction of replacement housing. No impact would occur and no mitigation would be required.

- c) **Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

No Impact. No housing or businesses currently exist on the Project site. As such, the Project would not displace any people. No impact would occur and no mitigation would be required.

3.13.3 Mitigation Measures

No mitigation measures are proposed.

3.14 Public Services

Public service information for the City of Menifee was obtained from the City of Menifee Fire Department (Menifee Fire Department 2016) and City of Menifee Police Department (Menifee Police Department 2016). Information for the City of Hemet was obtained from the City of Hemet Fire Department (Hemet Fire Department 2016) and the City of Hemet Police Department (Hemet Police Department (2016).

3.14.1 Environmental Setting

Public services provided to the Project are provided below.

Western Segment

Fire Protection and Emergency Services: The City of Menifee contracts for fire services with the Riverside County Fire Department (RCFD) / California Department of Forestry and Fire Protection (CAL FIRE). There are four RCFD fire stations in the City:

- Quail Valley Station #5, 28971 Goetz Road
- Sun City Station #7, 27860 Bradley Road
- Menifee Station #68, 26020 Wickerd Road
- Menifee Lakes Station #76, 29950 Menifee Road

The Canyon Lake Station, Station #60, is located at 28730 Vacation Drive in the City of Canyon Lake about 0.5 mile west of the Menifee City boundary. Each of the five stations is equipped and staffed with a minimum of one Type 1 fire engine and a three-person engine company.

Police Protection Services: The City of Menifee contracts with the Riverside County Sheriff's Department to provide police service for the City. The Menifee and Perris Police Station are located in the same facility at 137 N. Perris Blvd., this facility serves the City of Menifee and neighboring cities. The mission of the Sheriff's Department is to meet the mandates prescribed by law, and provide efficient public safety, while working in partnership with the community and allied agencies. The City of Menifee has augmented law enforcement services with a traffic enforcement team, a special enforcement team, an alliance with a gang and narcotics task force, and crime prevention.

Eastern Segment

Fire Protection and Emergency Services: The Hemet Fire Department is responsible for fire suppression, rescue activities, and hazardous materials incidents within the City. Riverside County also contracts with CAL FIRE for fire suppression and rescue activities. The City has entered into reciprocal mutual aid agreements with CAL FIRE and the Idyllwild Fire Protection District to expedite service for the community. The following list the City and CAL FIRE station locations:

City of Hemet Fire Departments:

- Administrative Facility: 510 East Florida Avenue
- Fire Station #1: 220 North Juanita Street
- Fire Station #2: 895 West Stetson Avenue
- Fire Station #3: 4110 West Devonshire Avenue
- Fire Station #4: 1035 South Cawston Avenue
- Fire Station #5: 120 North Hemet Street
- Fire Training Center: 319 East Latham Avenue

Riverside County/CAL FIRE:

- Little Lake Station #26: 25954 Stanford Street
- Valle Vista Station #72: 25175 Fairview Street
- Air Attack—Helitack: Hemet-Ryan Airport

Police Protection Services: The Hemet Police Department provides law enforcement to the City of Hemet. The Department consists of sworn officers, support staff, and a large contingent of part-time volunteers. The Department facilities include:

- Headquarters: 450 E. Latham Street
- West End Sub Station: 3663 W. Florida Avenue
- East End Sub Station: 2047 E. Florida Avenue

3.14.2 Impact Assessment

Would the Project:

- a) **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:**

Fire protection, including medical aid?

Police protection?

Less Than Significant Impact. Implementation of the Project would not result in an increase in population and would not result in the need for new or physically altered fire or police facilities. The Project includes a new multi-use trail for pedestrians and bicyclists and associated intersection improvements including pedestrian-activated traffic signals at three crossings (Normandy Road, Murrieta Road, and Bradley Road) and traffic safety signage. The trail crossings at Normandy Road, Murrieta Road, and Bradley Road would be standard traffic signals (activated by the pedestrian push buttons only)

with standard safety lights. As discussed in Checklist Response 3.16, Transportation and Traffic, during construction, there is a potential for temporary lane closures at intersections in order to install pedestrian crossings where the trail would cross an existing roadway. Traffic flow would be maintained in at least one direction if lane closures are necessary. Special provisions for the Traffic Control System would be prepared by the County for inclusion in the Project specifications to ensure ease of traffic flow during construction and ensure coordination with property owners and emergency service providers in the area prior to and during Project construction (refer to mitigation measure TRAFFIC-1). Therefore, impacts would be less than significant and no further mitigation would be required.

Schools?

Parks?

Other public facilities?

No Impact. The Project would not result in an increase in population or facilities that would require the services of schools, parks, or other public facilities, or result in the need for new or physically altered facilities. Furthermore, the Project would not induce growth, therefore, would not result in the increase in demand for public services. No impact would occur and no mitigation would be required.

3.14.3 Mitigation Measures

No mitigation measures are proposed.

3.15 Recreation

Information in this section is based on the *City of Menifee General Plan, Open Space and Conservation Element* (Menifee 2013) and the *City of Hemet General Plan, Open Space and Conservation Element* (Hemet 2012).

3.15.1 Environmental Setting

Western Segment

The City of Menifee offers both active and passive recreation facilities. There are 641 acres of parks and recreation uses in Menifee. Menifee's active parks offer an array of facilities, including playgrounds, sports courts, and barbecue facilities and picnic benches. The City also has four 18-hole golf courses, two in Sun City (one is executive style) and another two in Menifee Lakes. In addition to parks the City has an interconnected system of recreational trails for hiking, biking, and equestrian use (Menifee 2013).

The City of Menifee General Plan identifies the Salt Creek Trail in both the Open Space and Conservation Element and the Transportation and Traffic Element. The goal of OSC-2 in the Open Space and Conservation Element is to provide, "A comprehensive network of hiking, biking, and equestrian recreation trails that do not negatively impact the natural environment or cultural resources."

Eastern Segment

The City of Hemet has seven active and passive parks and recreational facilities – a variety of recreational opportunities are offered at each park depending upon the size of the park and the type of facilities. Active uses include, but may not be limited to, baseball fields; lighted tennis courts; soccer fields, basketball courts and barbecue facilities. Passive uses include trails and undeveloped open spaces. Many parks are located adjacent to schools or community centers. The City has several connections to trail systems. A Class 1 bike path/regional trail system runs through the southern part of Hemet near Diamond Valley Lake. A Class 1 bike path also runs along the Ramona Expressway. The North Hills Trail, adjacent

to Diamond Valley Lake, is a 6.5-mile trail running along the northern slope of the north hills, providing sweeping views of the Hemet/San Jacinto Valley. Access into the trail is provided from the east entrance, Domenigoni Parkway and Searl Parkway, or from the west entrance at Winchester Road (SR 79) and Construction Road. The historic Juan Bautista de Anza National Trail parallels the San Jacinto River and Bautista Creek (although no improved facilities associated with this trail are located in Hemet) (Hemet 2012).

The City of Hemet General Plan 2030 identifies the Project in its Recreation and Trails Element, referencing the trail as an, "Offroad trail that runs along Salt Creek and connects to the County Regional Trail System on the west and Pepper Creek Trail on the east." In addition, the Project has been identified in the Riverside County General Plan Circulation Element's Bikeways and Trails Plan and in SCAG's 2016 RTP/SCS.

3.15.2 Impact Assessment

Would the Project:

- a) **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

Less Than Significant Impact. The Project would address transportation deficiencies caused by Riverside County's vehicle-oriented transportation infrastructure, and provide a corridor for alternative modes of transportation, including pedestrians and bicyclists. Implementation of the Project would improve mobility in the Project area, connect communities, and offer an alternative mode of transportation for residents to be used for recreation and commuting purposes for non-motorized vehicles. Implementation of the Project would likely increase the use of the trail facilities. However, since the proposed Project involves constructing a multi-modal trail for recreation and commuting purposes, it is not anticipated that this increase in use would result in a physical deterioration of existing trail facilities. The Project would result in a long-term benefit for the surrounding area, as the bicycle lanes and pedestrian path would create a more pedestrian friendly environment, benefiting all residents living in the cities of Menifee and Hemet and surrounding communities. Therefore, this impact is considered less than significant and no mitigation is required.

- b) **Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

Less Than Significant with Mitigation Incorporated. As indicated in Checklist Response 3.14.2 (a), implementation of the Project would not induce population growth – the Project would include a multi-use trail to provide a corridor for alternative modes of transportation, including pedestrians and bicyclists. Impacts which may have an adverse physical effect on the environment have been discussed and analyzed in this document. Implementation of the mitigation measures contained in this Initial Study would ensure that this recreational facility would not have an adverse physical effect on the environment.

3.15.3 Mitigation Measures

See mitigation measures contained in Sections 3.1 Air Quality (AQ-1 and AQ-2), 3.4 Biological Resources (BIO-1 through BIO-12), 3.5 Cultural Resources (CUL-1 through CUL-5), Hazards/Hazardous Materials (HAZ-1 and HAZ-2), 3.12 Noise (NOI-1), and 3.16 Transportation and Traffic (TRAFFIC-1) of this Initial Study.

3.16 Transportation and Traffic

3.16.1 Environmental Setting

Western Segment

The transportation facilities within the western segment of the Project are shown below and classified in the City of Menifee's General Plan as follows:

- **I-215** – major regional traffic thoroughfare (freeway).
- **Goetz Road** – major north-south connector.
- **Normandy Road** – a major east/west road.
- **Murrieta Road** – major north/south arterial road.
- **Bradley Road** – major north/south road.
- **Antelope Road** – local collector road.

Eastern Segment

The transportation facilities within the eastern segment of the Project are shown below and classified in the City of Hemet's General Plan as follows:

- **Domenigoni Parkway** – major east/west divided arterial road.
- **State Street** – major north/south secondary road.
- **Sanderson Avenue** – major north/south road.
- **Chambers Street** – local east/west collector street.

3.16.2 Impact Assessment

Would the Project:

- a) **Conflict with an applicable plan, ordinance, or policy establishing a measure of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

Less Than Significant Impact with Mitigation Incorporated. The Project would include the new multi-use trail for pedestrians and bicyclists and associated intersection improvements including pedestrian-activated traffic signals at three crossings (Normandy Road, Murrieta Road, and Bradley Road), and traffic safety signage. The pedestrian/trail crossings at Normandy Road, Murrieta Road, and Bradley Road would be standard traffic signals (activated by the pedestrian push buttons only) with standard safety lights. For the crossing at Antelope Road, a new standard street light would be constructed at the northeast corner of Antelope Road and Aldergate Drive. The Project would address transportation deficiencies caused by Riverside County's vehicle-oriented transportation infrastructure and provide a corridor for alternative modes of transportation, including non-motorized travel. Implementation of the Project would improve mobility in the Project area, connect communities, and offer an alternative mode of transportation for residents to be used for recreation and commuting purposes.

As stated previously, the Salt Creek Trail is identified in both the City of Menifee General Plan and the City of Hemet General Plan as a planned recreation use/trail. In addition, The Project has been identified in the Riverside County General Plan Circulation Element's Bikeways and Trails Plan and in SCAG's 2016 RTP/SCS. Additionally, the Riverside County Sun City/Menifee Valley Area Plan states that, "Both

the channelized and natural portions of Salt Creek have been designated Open Space-Recreation to allow the potential for the channel to serve both flood control and recreation purposes.” It is identified as such due to planned linkages with smaller trails as well as accessibility to area homes, schools and businesses. Because the Salt Creek Trail is one of five essential backbone trails in the Riverside County Integrated Project and is a major east/west trail for the Western Riverside County Trail System, it would provide an alternative to automobile travel between home and work, and would provide access to area schools, businesses, parks, and other recreational amenities for pedestrians and cyclists.

During Project construction, there is a potential for temporary lane closures at intersections in order to install pedestrian crossings where the trail would cross an existing roadway. Traffic flow would be maintained in at least one direction during the lane closure. Ramp closures, detours, and temporary roads closures are not expected. Special provisions for the Traffic Control System would be prepared by the County for inclusion in the Project specifications to ensure ease of traffic flow during construction and ensure coordination with property owners and emergency service providers in the area prior to and during Project construction (refer to mitigation measure TRAFFIC-1). Construction of the Project would not change access to any properties or roadways. Most of the Project would be constructed along existing maintenance and service roadways adjacent to the Salt Creek Channel and other drainages, and therefore, the trail would not impede access to properties, roadways, or driveways. No impact would occur and no further mitigation would be required.

The Project would not result in an increase in vehicle trips after construction. Therefore, the Project would not generate traffic that could conflict with applicable congestion management plans, ordinances, or policies related to the circulation system.

b) Conflict with an applicable congestion management program including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less Than Significant Impact with Mitigation Incorporated. Refer to Checklist Response 3.16.2 (a).

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?

No Impact. The Project does not include any structures that would interfere with air traffic patterns nor would it increase traffic levels that would result in a substantial safety risk. No impacts related to air traffic patterns would occur and no mitigation would be required.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The Project does not include any uses or design features that would increase traffic hazards. While the Project includes pedestrian-activated traffic signals at three crossings (Normandy Road, Murrieta Road, and Bradley Road) and traffic safety signage, no permanent changes in roadway design features such as sharp curves or dangerous intersections would be introduced to the site. No impact would occur and no mitigation would be required.

e) Result in inadequate emergency access?

Less Than Significant Impact with Mitigation Incorporated. The Project’s effects on emergency access would be limited to construction of the Project and would be temporary in nature. Most of the Project would be constructed along existing maintenance and service roadways adjacent to the Salt Creek Channel, and therefore, would not impede access to properties, roadways, or driveways. As discussed in