

1.0 EXECUTIVE SUMMARY

1.1 DESCRIPTION OF THE PROJECT

1.1.1 PROJECT BACKGROUND AND LOCATION

The Santa Ana River Riding and Hiking Trail and Santa Ana River Class I (off-road, paved) Bikeway (SAR Parkway) is a landscaped corridor with recreational facilities that is intended to provide a recreational and commuter link from the Pacific Ocean to the San Bernardino Mountains for walkers, joggers, runners, hikers, bicyclists, and equestrians. Since 1955, when the idea of the SAR Parkway was formalized, a total of 43 miles of the 110-mile trail have been completed (Santa Ana River Trail and Parkway 2010). It is estimated that over one million trail users visit the Orange County portion of the SAR Parkway each year.

The Santa Ana River Parkway Extension Project (proposed project) is located within a 2-mile stretch of the SAR Parkway. The proposed project is located on the north and south sides of the Santa Ana River (SAR). Specifically, the project area is located between Gypsum Canyon Road on the west and the Orange/Riverside/San Bernardino County boundaries on the east, and between the Burlington Northern Santa Fe (BNSF) railroad and La Palma Avenue on the north and State Route (SR) 91 on the south. The majority of the project area is located within the City of Yorba Linda. The easternmost portion of the project area is located within unincorporated Orange County.

1.1.2 ENVIRONMENTAL SETTING AND EXISTING CONDITIONS

The SAR flows westerly through the center of the project area. The project area includes levees or elevated earthen benches, a portion of a regional railroad corridor, Canyon RV Park (within Featherly Regional Park), Chino Hills State Park (CHSP), and the Green River Golf Club (GRGC). Canyon RV Park is a private leasehold with RV hookups and cabins on a portion of Orange County Parks' (OC Parks) land just north of SR-91 and adjacent to Gypsum Canyon Road. The GRGC is owned and operated by the Orange County Flood Control District (OCFCD).

The Orange County portion of the SAR Parkway includes an existing Class I (off-road, paved) Bikeway (bikeway). The bikeway begins at the Pacific Ocean and extends inland 28 miles along the SAR, to the Orange County boundary. The bikeway arrives at the project area from the west on the SAR's north bank at Gypsum Canyon Road. The bikeway then crosses south over the SAR on the Gypsum Canyon Road Bridge. From the south side of the SAR the bikeway extends east through the project area terminating at the Orange County boundary and Green River Road. This existing portion of the bikeway primarily utilizes the 12-foot paved river levee service road that follows the south bank of the SAR. The levee service road is adjacent to the SR-91. Access points are located along this portion of the bikeway, including connections to other existing regional riding and hiking trails located outside of the project area (i.e., Gypsum Canyon Riding and Hiking Trail and Coal Canyon Riding and Hiking Trail). Several wildlife corridors (e.g., Coal Canyon, Brush Canyon, Gypsum Canyon, etc.) are also located within and/or adjacent to the project area.

The Orange County portion of the SAR Parkway also includes an existing Riding and Hiking (unpaved) Trail, which currently extends inland 26 miles from the Pacific Ocean, and arrives at the project area from the west along the north bank of the SAR, and terminates at the Gypsum Canyon Road Bridge. A 2-mile gap in the Riding and Hiking Trail exists within the project area.

The following land uses surround the project area:

- North. Residential uses (including the Villa del Rio neighborhood and Riverbend Apartments), open space, and a portion of the CHSP are located north of La Palma Avenue and the BNSF Railroad.
- East. Portions of the GRGC are located to the east of the project area, near the Orange County boundary.
- South. The SR-91 is located directly south of the project area. South of the SR-91 are Orange County parkland, CHSP, and undeveloped land within the City of Anaheim.
- West. Gypsum Canyon Road is located to the west of the project area. A portion of Canyon RV Park is located west of Gypsum Canyon Road.

1.1.3 PROJECT PURPOSE AND NEED

On October 17, 2006, the Counties of Orange, Riverside, and San Bernardino; the Santa Ana Watershed Project Authority (SAWPA); and the Wildlands Conservancy entered into a Memorandum of Understanding (MOU) to coordinate planning along the SAR and assist in completing the SAR Parkway. When finished, this regional recreational resource would include a Class I Bikeway and a Riding and Hiking Trail. The Class I Bikeway is planned from the Pacific Ocean to the foothills of the San Bernardino Mountains. The Riding and Hiking Trail is planned from the Pacific Ocean to Big Bear Lake, high in the San Bernardino Mountains.

As described previously, the existing Orange County portion of the bikeway extends 28 miles from the Pacific Ocean to the Orange County boundary. However, the bikeway within the project area currently connects only to Green River Road on the south side of the SAR at the Orange/Riverside County boundary. Additionally, the existing Orange County portion of the 26-mile Riding and Hiking Trail also begins near the Pacific Ocean but ends approximately 2 miles west of the Orange County boundary at Gypsum Canyon Road in the City of Yorba Linda. The proposed project would complete the 2-mile gap of the Orange County portion of the Riding and Hiking Trail and provide a new Class I Bikeway on the north side of the SAR, both of which would extend to the Orange/San Bernardino County boundary just south of the BNSF railroad.

1.1.4 PROJECT OBJECTIVES

Project objectives include the following:

- Close a critical two-mile gap between Gypsum Canyon Road and the Orange County border in the SAR Riding and Hiking Trail for the purpose of extending and completing the Orange County portion of the SAR Parkway system and facilitating connection with planned improvements in Riverside and San Bernardino Counties.
- Provide staging, trailheads, crossroads/intersections, and other amenities that enhance the Orange County SAR Parkway and facilitate connection to adjacent existing and future recreational trails.
- Provide an enjoyable bikeway, riding and hiking experience.
- Enhance the SAR Parkway as a passive recreational destination.

- Minimize GRGC intrusion.
- Minimize Featherly Regional Park/Canyon RV Park intrusion.
- Minimize intrusion and conform to the CHSP General Plan.
- Establish a maintainable bikeway and trail system.
- Maximize bikeway and trail user safety.

1.1.5 DESCRIPTION OF THE PROJECT

The proposed project includes the construction of a new Class I Bikeway, Riding and Hiking Trail, and associated amenities on the north and south banks of the SAR between Gypsum Canyon Road and the Orange County boundary. The proposed project's main elements are summarized below. Please refer to Section 3.0 (Project Description) for additional detailed descriptions of the design features.

1.1.5.1 Segment 1

A new 10-foot-wide Riding and Hiking Trail would be located parallel to the existing bikeway that is located on the southern bank of the SAR adjacent to the SR-91. The new Riding and Hiking Trail would begin at Gypsum Canyon Road in the southwestern-most portion of the project area. Within Canyon RV Park, at Featherly Regional Park, the new Riding and Hiking Trail would span (via Proposed Bridge #3) the existing Gypsum Canyon Channel located immediately east of Gypsum Canyon Road. Bridge #3 has a proposed width and length of 15 feet and 100 feet, respectively. Eastward from Bridge #3, the proposed Riding and Hiking Trail would meander approximately 1.75 miles between the SAR and the existing bikeway to proposed Bridge #2, which would be located approximately 0.15 mile east from the Coal Canyon Road. It should be noted that the existing bikeway would maintain its current extension eastward parallel to the SR-91 from the proposed Bridge #2 to the Orange/Riverside County boundary. Bridge #2, which would accommodate both the new Class I Bikeway and new Riding and Hiking Trail, would have a physical structure width of 25 feet and would consist of three spans, 120 feet each, for a total length of 360 feet. From Bridge #2, within the unincorporated Orange County portion of the project area, a new parallel 12-foot-wide Class I Bikeway and 10-foot-wide Riding and Hiking Trail would be constructed. The parallel Class I Bikeway and Riding and Hiking Trail would extend through a portion of the existing GRGC toward the BNSF Railroad. The new Class I Bikeway and Riding and Hiking Trail would then parallel the BNSF Railroad eastward to the Orange/San Bernardino County boundary. Approximately 3,000 linear feet of new paving would be required for the new Class I Bikeway to connect from Bridge #2 to the Orange/San Bernardino County boundary. Trailheads would be located at Featherly Regional Park and near the Coal Canyon Trail at CHSP. Five turnouts would be provided along Segment #1 at various locations throughout the project area. In addition, one turnout would be provided along the existing bikeway on the south side of the SAR, between CHSP and the Orange/Riverside County boundary. A vista point would be provided at the east end of the CHSP at the SAR overlook.

1.1.5.2 Segment 2

A new parallel 12-foot-wide Class I Bikeway and 10-foot-wide Riding and Hiking Trail would be located on the northern bank of the SAR, adjacent to La Palma Avenue. The new Class I Bikeway would utilize the existing, paved County service road on top of the existing levee. The new Riding and Hiking Trail would be located on the SAR side of the new Class I Bikeway. The new parallel Class I Bikeway and

Riding and Hiking Trail would extend eastward from Gypsum Canyon Road approximately 0.75 mile to the end of the paved portion of the existing County service road. From this point, the new parallel Class I Bikeway and Riding and Hiking Trail would continue eastward and southward to proposed Bridge #1. Approximately 1,700 linear feet of new paving would be required for the new Class I Bikeway to connect the existing County service road to Bridge #1. Bridge #1 would cross the SAR and join Segment #1. Bridge #1, which would accommodate both the new Class I Bikeway and new Riding and Hiking Trail, would have a physical structure width of 25 feet and would consist of three spans, 115 feet each, for a total length of 345 feet. A turnout would be provided at the north end of Bridge #1 and a vista point would be provided at the midpoint of Bridge #1. A Staging Area is proposed adjacent to Segment #2, east of the La Palma Avenue and Gypsum Canyon Road intersection. It would be accessed by vehicles from La Palma Avenue. The Staging Area would be located at a lower elevation than La Palma Avenue.

1.1.5.3 Construction

Construction Schedule and General Activity

Construction of the proposed project is expected to take approximately 18 months and is anticipated to begin mid-2017. A crew of approximately 20-30 construction workers (daily) will be in the project area during construction. For safety purposes, a temporary fence will be installed to secure the construction site and restrict public access while maintaining access to recreational facilities. Public use and access of the SAR Parkway would be maintained during construction. Construction activities will require grading, excavation, import of construction materials (asphalt concrete, aggregate base, decomposed granite, and fill material), soil compaction, and removal of pavement.

Construction Equipment

Major equipment to be used during construction includes, but is not limited to: air compressor, backhoe, concrete pump rig, crane, dozer, forklift, generator, loader, motor grader, paving machine, roller, sheeps foot, dump truck, flatbed truck, oil/lube truck, pickup truck, water truck, 18-wheel low boy, fuel truck, and ready-mix truck.

Construction Access and Construction Staging/Laydown

Construction access will be provided from Gypsum Canyon Road and La Palma Avenue on the west side of the project area, Green River Road/GRGC on the east side of the project area, and from Coal Canyon Road. Temporary construction-related staging and laydown areas would be sited in five locations within the project area: (1) at the north bank of the SAR, south of La Palma Avenue, and immediately adjacent to and west of the proposed (permanent) staging area; (2) at the north bank of the SAR, immediately south of brush canyon, situated between agricultural service roads; (3) at the south bank of the SAR, immediately adjacent to and on both the east and west sides of proposed Bridge #1; (4) at the south bank of the SAR, east of Bridge #1 within a large graded, dirt area; and (5) at the west end of the GRGC, north of the SAR and east of proposed Bridge #2.

1.1.5.4 Operation and Maintenance

The SAR Class I Bikeway would operate during daylight hours only, from 7:00 AM to 6:00 PM from November 1 to February 28, and from 7:00 AM to 9:00 PM from March 1 to October 31. The hours of operation would be posted along the bikeway. No nighttime lighting would be provided along the bikeway.

A maintenance plan would be adopted as part of the proposed project. Operational maintenance activities associated with the proposed project would primarily be associated with the staging area, which would be operated by the County as a satellite facility. As such, maintenance activities would consist of daily trips for locking and unlocking the gate to the facility to maintain sunup to sundown hours. Weekly maintenance visits would be required for cleaning of the restrooms and horse corral and for overall facility inspection.

1.2 SUMMARY OF IMPACTS

Section 5.0 (Existing Conditions, Impacts, Mitigation Measures and Level of Significance After Mitigation) of this Draft EIR documents the technical analyses of the potential impacts of the project related to agriculture resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, recreation, transportation and traffic, and utilities and services. The Alternatives that were considered are described in Section 6.0 (Alternatives to the Project) and are summarized below in Section 1.3 (Alternatives). Sections 7.0 (Growth Inducing Impacts) and 8.0 (Cumulative Impacts) describe the potential for the proposed project to result in growth inducing and cumulative impacts, respectively. Section 10.0 (Unavoidable Adverse Impacts) summarizes the potentially significant adverse impacts of the proposed project which cannot be avoided or mitigated to below a level of significance.

The potential for the proposed project to result in adverse impacts related to these environmental parameters is summarized in Table 1-1.

1.3 ALTERNATIVES

1.3.1 SUMMARY OF ALTERNATIVES

This Draft EIR analyzes two Alternatives to the proposed project, which includes the No Project (No Build) Alternative as required by CEQA. Alternatives considered in this analysis include the following:

- Alternative 1: No Project (No Build).
- Alternative 2: South of Green River Golf Club.

With the exception of the mandatory No Project (No Build) Alternative, Alternative 2, described in Section 1.3.1.2, below, was selected due to its potential to attain basic project objectives and lessen or avoid significant environmental effects resulting from implementation of the proposed project. A brief description of Alternatives 1 and 2 is provided below. For a detailed description of these Alternatives, refer to Section 6.0 (Alternatives to the Project).

1.3.1.1 Alternative 1: No Project (No Build)

For Alternative 1, no new development would occur and the existing SAR Parkway would remain as it currently exists. The SAR Parkway would continue to provide a recreational and commuter link for walkers, joggers, runners, hikers, and bicyclists. The project area would remain as is, with a 2-mile gap of the Riding and Hiking Trail between Gypsum Canyon Road and the Orange County border.

**TABLE 1-1
SUMMARY OF IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE AFTER MITIGATION**

| POTENTIAL IMPACT | MITIGATION MEASURES | LEVEL OF SIGNIFICANCE AFTER MITIGATION |
|--|--|--|
| Summary of Impacts Related to Agriculture Resources | | |
| <p>Implementation of the proposed project would not result in significant adverse impacts related to the conversion of farmland to non-agricultural use or other changes in the existing environment, which, due to their location or nature, could result in conversion of farmland, to non-agricultural use.</p> | <p>No mitigation required.</p> | <p>Less than Significant.</p> |
| Summary of Impacts Related to Air Quality | | |
| <p>Implementation of the proposed project would not result in significant adverse impacts related to conflict with or obstruction of the implementation of the applicable air quality plan.</p> | <p>No mitigation required.</p> | <p>Less than Significant.</p> |
| <p>Implementation of the proposed project has the potential to result in significant adverse impacts related to the violation of an air quality standard or contribute substantially to an existing or projected air quality violation.</p> <p>Implementation of the proposed project has the potential to result in significant adverse impacts related to a cumulatively considerable net increase of a criteria pollutant.</p> <p>Implementation of the proposed project has the potential to result in significant adverse impacts related to exposure of sensitive receptors to substantial pollutant concentrations.</p> | <p>AQ-1 Off-road construction diesel engines not registered under ARB’s Statewide Portable Equipment Registration Program that have a rating of 50 horsepower (hp) or more, shall meet, at a minimum, the Tier 3 California Emissions Standards, unless such an engine is not available for a particular item of equipment. Tier 2 engines will be allowed on a case-by-case basis when the contractor has documented that no Tier 3 equipment or emissions equivalent retrofit equipment is available for a particular equipment type that must be used to complete construction. Documentation shall consist of signed written statements from at least two construction equipment rental firms.</p> | <p>Significant and Unavoidable (applies only to localized PM₁₀ and PM_{2.5} emissions during construction).</p> |

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| Implementation of the proposed project would not result in significant adverse impacts related to creation of objectionable odors affecting a substantial number of people. | No mitigation required. | Less than Significant. |
| Summary of Impacts Related to Biological Resources | | |
| <p>Implementation of the proposed project has the potential to result in substantial adverse impacts, 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 (CDFG) or United States Fish and Wildlife Service (USFWS).</p> <p>Implementation of the proposed project has the potential to result in a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG or USFWS.</p> | <p>BR-1 Prior to the issuance of a grading permit, the County shall conduct biological field surveys of the project area for the following special status plant and wildlife species:</p> <ul style="list-style-type: none"> • Santa Ana River Woolly Star (<i>Eriastrum densifolium sanctorum</i>); • Coastal California Gnatcatcher (<i>Polioptila californica californica</i>); • Santa Ana Sucker (<i>Catostomus santaanae</i>), and • Least Bell’s vireo (<i>Vireo bellii pusillus</i>). <p>Surveys shall be conducted in accordance with current California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Services (USFWS) survey protocols for the identified species by a qualified biologist/botanist to confirm their presence or absence in the project site.</p> <p>BR-2 During construction, all equipment maintenance, lighting, and staging shall be located in designated areas, and to the extent possible directed away from ecologically sensitive areas and wildlife corridors.</p> <p>BR-3 Speed limits of 10 miles per hour (mph) or less shall be required at all times to avoid potential injury to wildlife in the area, and minimize fugitive dust.</p> <p>BR-4 A litter control program shall be implemented during construction to eliminate the accumulation of trash. Trash will be removed to trash receptacles following the close of each workday, and disposed of in a sanitary landfill at the end of each work week.</p> | Less than Significant. |

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| | <p>BR-5 A qualified biologist will monitor construction during clearing, grubbing, and excavation activities, as needed. At a minimum, construction monitoring should be implemented at bridge construction locations, wherever riparian vegetation provides potentially suitable habitat for any of the special-status wildlife species (e.g., least Bell’s vireos) that have potential to occur in the project area. The monitor will ensure that construction workers stay within the designated footprints of the project to avoid trespass on foot or in vehicles into sensitive habitats, and ensure compliance with the conditions of project permits and agreements.</p> <p>BR-6 During the least Bell’s vireo nesting season (March 15 to August 31), wherever breeding territories of vireos may be present in areas adjacent to project construction sites, a qualified vireo biologist will monitor territories to ensure that active vireo nests are not being adversely impacted by construction noise and activities. Nest protection buffer areas for listed birds would typically be at least 300-feet from areas of construction, although the specifics of appropriate buffer distances can be determined during consultation with the resource agencies.</p> <p>BR-7 The County shall comply with the following measures, in order to mitigate any effects of clearing or construction activities on biological resources and to protect special status resources, including impacts to birds subject to the Migratory Bird Treaty Act (MBTA):</p> <ul style="list-style-type: none"> • To the extent feasible, all vegetation removal activities shall be scheduled outside the nesting season (typically February 15 to August 15) to avoid potential impacts to nesting birds. • If initial vegetation removal occurs during the nesting season, all suitable habitat shall be thoroughly surveyed for the presence of nesting birds by a qualified biologist no more than five-days prior to commencement of clearing. All nests found will be recorded. • If any active nests are detected, a nest protection buffer of at least 100 feet (300 feet for raptors) shall be delineated, flagged, and avoided until the nesting cycle is complete as determined by the biological monitor to minimize impacts. | |

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| | <ul style="list-style-type: none"> • If the recommended nest protection zone is not feasible, the qualified biologist will determine whether an exception is possible and obtain concurrence from the appropriate resource agency before construction work can resume within the avoidance buffer zone. All work will cease within the avoidance buffer zone until agency concurrence is obtained or the biologist determines that the adults and young no longer rely on the nest site. • After vegetation removal for the project has been completed, wherever construction activities are taking place during the breeding season, in areas adjacent to potential nesting habitat outside the work limits, surveys will continue on a once-a-week basis for nesting birds. <p>BR-8 Wherever possible, construction personnel shall utilize existing access roads or previously disturbed areas to reach the project area or stage their vehicles and equipment.</p> <p>BR-9 Prior to removal of vegetation within the bed of the Santa Ana River, the routes in and out of the project area shall be flagged to minimize impacts of crushing or removing native vegetation within the area. The perimeter of the work site shall be adequately flagged and/or fenced to prevent damage to adjacent habitat. All this work shall be supervised by an on-site, qualified biologist. Temporary fencing (with silt barriers) will be installed at the limits of project impacts (including construction staging areas and access routes) to prevent habitat impacts and prevent the spread of silt from the construction zone into adjacent habitats. The fencing will be installed in a manner that does not impact adjacent habitats to be avoided.</p> <p>BR-10 The contractor will be informed regarding the biological constraints of this project. The project limits will be clearly marked on project maps provided to the contractor and areas outside of the project limits will be designated as “no construction” zones. A construction manager will be present during all construction activities to ensure that work is within designated project limits.</p> | |

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| <p>Implementation of the proposed project has the potential to result in 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.</p> | <p>BR-11 Prior to approval of the project plans and specifications, the County shall confirm that the plans and specifications stipulate that, prior to commencement of construction activities, the County shall coordinate with the U.S. Army Corps of Engineers to obtain authorization pursuant to Section 404 of the Federal Clean Water Act and the Regional Water Quality Control Board to obtain a Water Quality Certification pursuant to Section 401 of the Federal Clean Water Act. Additionally, the County shall obtain a Streambed Alteration Agreement from the California Department of Fish and Game pursuant to Section 1602 of California Fish and Game Code. The County shall implement a project-specific Habitat Mitigation and Monitoring Plan (HMMP) as required by the permit authorizations.</p> <p>BR-12 The County shall successfully restore each acre of riparian vegetation that is temporarily disturbed during construction-related activities and shall keep all temporarily disturbed areas free of exotic plants until riparian vegetation is re-established. Restoration will be completed with at least a 1:1 ratio. If the site has not begun to recover within five (5) years, then the site shall be reseeded or re-planted with container plants and/or cuttings from native riparian species. Permanent impacts will be compensated through appropriate on-site or off-site mitigation as dictated by the permit authorizations. Exact compensation/restoration requirements would be negotiated with the regulatory agencies during the project permitting process.</p> <p>BR-13 Prior to commencement of riding and hiking trail operations, an ongoing O & M Program shall be prepared and approved by the County, in order to mitigate potential long-term impacts to biological resources and water quality from horse manure. Such a plan should contain BMPs specifically developed for equestrian uses (e.g., Mazboudi 2004; Cal-IPC 2012). The O & M Program may be part of an already-established program operated by OC Parks. The O & M Program shall identify items to be maintained and specify maintenance levels, funding resources, and work responsibility. The O & M Program shall also manage maintenance frequency for specific trail segments or the trail in its entirety, based on the maintenance plan or unique conditions. The County shall be responsible for overseeing or maintaining the trail facilities and establishing a consistent level of maintenance.</p> | <p>Less than Significant.</p> |

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| <p>Implementation of the proposed project would not result in significant adverse impacts related to substantial interference 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.</p> | <p>Although no significant impacts to wildlife movement would occur, the following mitigation measures are included to further reduce impacts to wildlife movement during construction:</p> <p>BR-14 Construction shall occur only during daylight hours, if possible, to minimize disturbances to wildlife species that move primarily at night. In particular, whenever possible, above-ground operations (including use of access pits, equipment and vehicles) in the vicinity of the Coal Canyon underpass (wildlife corridor) shall not begin until 0700 hours and shall be completed before dusk of each day. The only exception shall be for an activity that must continue non-stop until it is completed for physical or engineering reasons.</p> <p>BR-15 Excavation and trenching activities in areas of known wildlife movement shall include measures to prevent entrapment and injury to wildlife. For instance, steep-sided trenches may either be backfilled at the end of each work day, fenced, or include “escape ramps” for wildlife.</p> | <p>Less than Significant.</p> |
| <p>Implementation of the proposed project would not result in significant adverse impacts related to conflicts with local policies or ordinances protecting biological resources such as a tree preservation policy or ordinance.</p> | <p>No mitigation required.</p> | <p>Less than Significant.</p> |
| <p>Summary of Impacts Related to Cultural Resources</p> | | |
| <p>Implementation of the proposed project has the potential to result in significant adverse impacts related to the direct or indirect destruction of a unique paleontological resource or site or unique geologic feature.</p> | <p>C-1 Paleontological monitoring shall be conducted during all ground-disturbing activities at depths greater than 5 feet. The County-selected paleontological monitor will have the authority to redirect construction equipment if potential paleontological resources are encountered. If paleontological resources are encountered, work in the vicinity of the discovery will halt until appropriate treatment of the resource is determined by a qualified paleontologist in accordance with the provisions of CEQA Guidelines Section 15064.5. Work may continue on other parts of the project while consultation and treatment are conducted. Any paleontological materials recovered shall be prepared for and curated at an approved facility.</p> | <p>Less than Significant.</p> |

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| | <p>C-2 Prior to the commencement of any ground disturbing activities, a County-selected qualified paleontological consultant shall conduct training for construction personnel and supervisory staff on possible paleontological resources that may be present in the area to establish an understanding of what to look for during ground-disturbing activities.</p> | |
| <p>Implementation of the proposed project has the potential to result in significant adverse impacts related to causing a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.</p> <p>Implementation of the proposed project has the potential to result in significant adverse impacts related to disturbance of human remains, including those interred outside of formal cemeteries.</p> | <p>C-3 Archaeological monitoring shall be conducted during all ground-disturbing activities (including trenching, boring, and grading) in undisturbed native soils. The archaeological monitor will have the authority to redirect construction equipment in the event potential archaeological resources are encountered. If archaeological resources are encountered, work in the vicinity of the discovery will halt until appropriate treatment of the resource is determined by a qualified archaeologist in accordance with the provisions of CEQA Guidelines Section 15064.5. If Native American cultural materials are encountered during project-related ground disturbance, a trained Native American consultant shall be engaged to monitor ground-disturbing work in the area containing the Native American cultural resources. This monitoring shall occur on an as-needed basis and shall be intended to ensure that Native American concerns are taken into account during the construction process.</p> <p>C-4 Prior to the commencement of any ground-disturbing activities, a qualified archaeological consultant shall conduct training for construction personnel and supervisory staff on possible archaeological resources that may be present in the area to establish an understanding of what to look for during ground-disturbing activities.</p> <p>C-5 If human remains are discovered, work in the immediate vicinity of the discovery shall be suspended and the County Coroner shall be contacted. If the remains are deemed Native American in origin, the County Coroner shall contact the Native American Heritage Commission and identify a Most Likely Descendant pursuant to Public Resources Code Section 5097.98 and CEQA Guidelines Section 15064.5. Work may continue on other parts of the project while consultation and treatment are conducted. Any archaeological materials recovered shall be prepared for and curated at an approved facility.</p> | <p>Less than Significant.</p> |

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| Summary of Impacts Related to Geology and Soils | | |
| <p>Implementation of the proposed project would not result in significant adverse impacts related to exposure of people or structures to potential adverse effects, including risk of loss, injury, or death involving 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.</p> | <p>No mitigation required.</p> | <p>No Impact.</p> |
| <p>Implementation of the proposed project has the potential to result in significant impacts related to exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking, and seismic-related ground-failure, including liquefaction.</p> <p>Implementation of the proposed project has the potential to result in significant impacts related to being located on geologic unit or soil that is unstable, or that would become unstable as a result of the proposed project, and potentially result in on- or off-site landslide, lateral spreading, liquefaction, or collapse.</p> <p>Implementation of the proposed project has the potential to result in significant</p> | <p>G-1 A site specific, design-level geotechnical investigation shall be prepared for the proposed project prior to the issuance of a grading permit. The investigation shall be conducted by a Certified Engineering Geologist or Licensed Geotechnical Engineer to assess detailed seismic, geologic, and soil conditions for all components of the proposed project. The geotechnical investigation shall include a seismic evaluation of potential maximum ground motion at the site, an evaluation of liquefaction potential, slope stability, expansive and compressible soils, and other structural characteristics and shall conform to the County Grading Manual. All geotechnical recommendations identified in the investigation shall subsequently be incorporated into the design of the proposed project, as approved by the Orange County Public Works Chief Engineer or their designee.</p> | <p>Less than Significant.</p> |

**TABLE 1-1
SUMMARY OF IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE AFTER MITIGATION**

| POTENTIAL IMPACT | MITIGATION MEASURES | LEVEL OF SIGNIFICANCE AFTER MITIGATION |
|---|----------------------------|---|
| impacts related to being located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) creating substantial risks to life or property. | | |
| Implementation of the proposed project would not result in significant adverse impacts related to subsidence as a result of being located on geologic unit or soil that is unstable, or that would become unstable as a result of the proposed project. | No mitigation required. | Less than Significant. |
| Implementation of the proposed project would not result in significant adverse impacts related to substantial soil erosion or loss of topsoil. | No mitigation required. | Less than Significant. |
| Summary of Impacts Related to Greenhouse Gas Emissions | | |
| Implementation of the proposed project would not result in significant adverse impacts related to the generation of greenhouse gas emissions either directly or indirectly. | No mitigation required. | Less than Significant. |
| Implementation of the proposed project would not result in significant adverse impacts related to conflicts with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. | No mitigation required. | Less than Significant. |

**TABLE 1-1
SUMMARY OF IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE AFTER MITIGATION**

| POTENTIAL IMPACT | MITIGATION MEASURES | LEVEL OF SIGNIFICANCE AFTER MITIGATION |
|--|--|---|
| Summary of Impacts Related to Hazards and Hazardous Materials | | |
| Implementation of the proposed project would not result in significant adverse impacts related to creation of a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. | No mitigation required. | Less than Significant. |
| Implementation of the proposed project would not result in significant adverse impacts related to being located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment. | No mitigation required. | Less than Significant. |
| Summary of Impacts Related to Hydrology and Water Quality | | |
| Implementation of the proposed project has the potential to result in any significant adverse impacts related to violation of any water quality standards or waste discharge requirements. | BR-13 Prior to commencement of riding and hiking trail operations, an ongoing O & M Program shall be prepared and approved by the County, in order to mitigate potential long-term impacts to biological resources and water quality from horse manure. Such a plan should contain BMPs specifically developed for equestrian uses (e.g., Mazboudi 2004; Cal-IPC 2012). The O & M Program may be part of an already-established program operated by OC Parks. The O & M Program shall identify items to be maintained and specify maintenance levels, funding resources, and work responsibility. The O & M Program shall also manage maintenance frequency for specific trail segments or the trail in its entirety, based on the maintenance plan or unique conditions. The County shall be responsible for overseeing or maintaining the trail facilities and establishing a consistent level of maintenance. | Less than Significant. |

**TABLE 1-1
SUMMARY OF IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE AFTER MITIGATION**

| POTENTIAL IMPACT | MITIGATION MEASURES | LEVEL OF SIGNIFICANCE AFTER MITIGATION |
|--|----------------------------|---|
| Implementation of the proposed project would not result in any significant adverse impacts related to substantially altering 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 or erosion on- or off-site. | No mitigation required. | Less than Significant. |
| Implementation of the proposed project would not result in any significant adverse impacts related to creation or contribution of runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. | No mitigation required. | Less than Significant. |
| Implementation of the proposed project would not result in any significant adverse impacts related to other substantial degradation of water quality. | No mitigation required. | Less than Significant. |
| Implementation of the proposed project would not result in any significant adverse impacts related to the placement of structures within a 100-year flood hazard area which would impede or redirect flood flows. | No mitigation required. | Less than Significant. |

**TABLE 1-1
SUMMARY OF IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE AFTER MITIGATION**

| POTENTIAL IMPACT | MITIGATION MEASURES | LEVEL OF SIGNIFICANCE AFTER MITIGATION |
|---|---|---|
| Summary of Impacts Related to Noise and Vibration | | |
| <p>Implementation of the proposed project would not result in significant adverse noise and vibration impacts related to:</p> <ul style="list-style-type: none"> • 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. • Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. • A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. | <p>Although no significant impacts related to noise or vibration would occur due to compliance with the exemption hours stated in the City of Yorba Linda and County of Orange Noise Ordinances, the following mitigation measures are included to minimize noise and vibration related to construction activity:</p> <p>N-1 The construction contractor shall locate fixed/stationary equipment as far as feasible from sensitive receptors.</p> <p>N-2 The construction contractor shall store and maintain equipment as far as feasible from sensitive receptors.</p> <p>N-3 The construction contractor shall ensure that all construction equipment are maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations.</p> <p>N-4 The construction contractor shall ensure that equipment engine shrouds are closed during equipment operation.</p> <p>N-5 The construction contractor shall ensure that all motorized construction equipment is shut down when not in use to prevent excessive idling noise and vibration.</p> | <p>Less than Significant.</p> |
| Summary of Impacts Related to Recreation | | |
| <p>Implementation of the proposed project would not result in significant adverse recreation impacts related to:</p> <ul style="list-style-type: none"> • An increase in 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. | <p>No mitigation required.</p> | <p>Less than Significant.</p> |

**TABLE 1-1
SUMMARY OF IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE AFTER MITIGATION**

| POTENTIAL IMPACT | MITIGATION MEASURES | LEVEL OF SIGNIFICANCE AFTER MITIGATION |
|---|--------------------------------|---|
| <ul style="list-style-type: none"> Construction or expansion of recreational facilities that might have an adverse physical effect on the environment. | | |
| Summary of Impacts Related to Transportation and Traffic | | |
| <p>Implementation of the proposed project would not result in any significant adverse impacts related to:</p> <ul style="list-style-type: none"> Conflicts with an applicable plan, ordinance, or policy establishing measures 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. Conflicts 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. Conflicts with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. | <p>No mitigation required.</p> | <p>Less than Significant.</p> |

**TABLE 1-1
SUMMARY OF IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE AFTER MITIGATION**

| POTENTIAL IMPACT | MITIGATION MEASURES | LEVEL OF SIGNIFICANCE AFTER MITIGATION |
|--|----------------------------|---|
| <ul style="list-style-type: none"> Conflicts with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. | | |

Source: AECOM (2015).

1.3.1.2 Alternative 2: South of Green River Golf Club

Alternative 2 would include similar elements as the proposed project; however Alternative 2 offers an alternate alignment of Segment #1 near the proposed Bridge #2. The alternate segment would begin on the northern bank of the SAR at the proposed location of Bridge #2, would extend eastward (directly south of GRGC and parallel to the SAR) for approximately 0.66 mile, terminating in Riverside County (just east of the Orange County border) at the existing vehicular bridge that leads to the GRGC clubhouse. Except for this alternate alignment of Segment #1, Alternative 2 includes the same elements as the proposed project (see Section 3.5 of this Draft EIR).

1.3.2 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Table 1-2 shows a comparison of the environmental effects of the proposed project, the project alternatives, and the No Project (No Build) Alternative. Each of the build alternatives would result in environmental impacts greater than would occur under the No Project (No Build) Alternative. Therefore, the No Project (No Build) Alternative is the environmentally superior alternative, although it would not meet all of the project objectives, as discussed in Section 6.7, below. Section 15126.6(e) of the CEQA Guidelines states that if the No Project Alternative is selected as the environmentally superior alternative, then the EIR shall also identify an environmentally superior alternative among the other alternatives. A comparison of the remaining alternatives is provided below.

**TABLE 1-2
COMPARISON OF THE ENVIRONMENTAL IMPACTS OF ALL PROJECT ALTERNATIVES**

| ENVIRONMENTAL PARAMETER | PROPOSED PROJECT | ALTERNATIVE 1 | ALTERNATIVE 2 |
|---------------------------------|-------------------------|----------------------|---|
| Agriculture Resources | 2 | 1 | 2 (Similar impact to the proposed project) |
| Air Quality | 4 | 1 | 4 (Similar impact to the proposed project) |
| Biological Resources | 3 | 1 | 3 (Slightly less impact than the proposed project) |
| Cultural Resources | 3 | 1 | 3 (Similar impact to the proposed project) |
| Geology and Soils | 3 | 1 | 3 (Similar impact to the proposed project) |
| Greenhouse Gas Emissions | 2 | 1 | 2 (Similar impact to the proposed project) |
| Hazards and Hazardous Materials | 2 | 1 | 2 (Similar impact to the proposed project) |
| Hydrology and Water Quality | 3 | 1 | 3 (Similar impact to the proposed project) |

**TABLE 1-2
COMPARISON OF THE ENVIRONMENTAL IMPACTS OF ALL PROJECT ALTERNATIVES**

| ENVIRONMENTAL PARAMETER | PROPOSED PROJECT | ALTERNATIVE 1 | ALTERNATIVE 2 |
|--------------------------------|-------------------------|----------------------|---|
| Noise and Vibration | 2 | 1 | 2 (Similar impact to the proposed project) |
| Recreation | 2 | 1 | 2 (Similar impact to the proposed project) |
| Transportation and traffic | 2 | 1 | 2 (Similar impact to the proposed project) |

Source: AECOM (2015).

Legend

- 1. No Impact.
- 2. Less than Significant Impact.
- 3. Less than Significant Impact After Mitigation.
- 4. Unavoidable Significant Impact.

The proposed project and Alternative 2 would include similar elements and would be constructed and operated in a similar manner. The majority of the disturbance limit would be the same under the proposed project and Alternative 2. However, the only difference between these two alternatives would be the alignment of Segment #1. Under Alternative 2, Segment #1 (near the proposed Bridge #2) would extend east, not north, through the GRGC. Due to the alternative alignment of Segment #1, Alternative 2 would result in slightly less biological impacts than the proposed project since it would impact fewer acres of jurisdictional waters. All other environmental impacts under both alternatives would be similar. Therefore, taking all of these factors into consideration, the environmentally superior alternative is Alternative 2.

1.3.3 SUMMARY OF THE ALTERNATIVES’ ABILITY TO MEET THE PROJECT OBJECTIVES

The proposed project and Alternative 2 meet all project objectives. Alternative 1 would not meet all of the project objectives. For example, Alternative 1 would not complete the SAR Class I Bikeway or the SAR Riding and Hiking Trail; thus, the 2-mile gap between Gypsum Canyon Road and the Orange County border in the SAR Riding and Hiking Trail would still remain. Also, staging, trailheads, crossroads/intersections, and other amenities that would enhance the Orange County SAR Parkway and facilitate connection to adjacent existing and future recreational trails would not be provided by Alternative 1.