



Proposed Drainage Improvements
and Restoration Activities at the
Rancho Mission Viejo Riding Park,
San Juan Capistrano

**Draft
Initial Study and
Mitigated Negative Declaration**

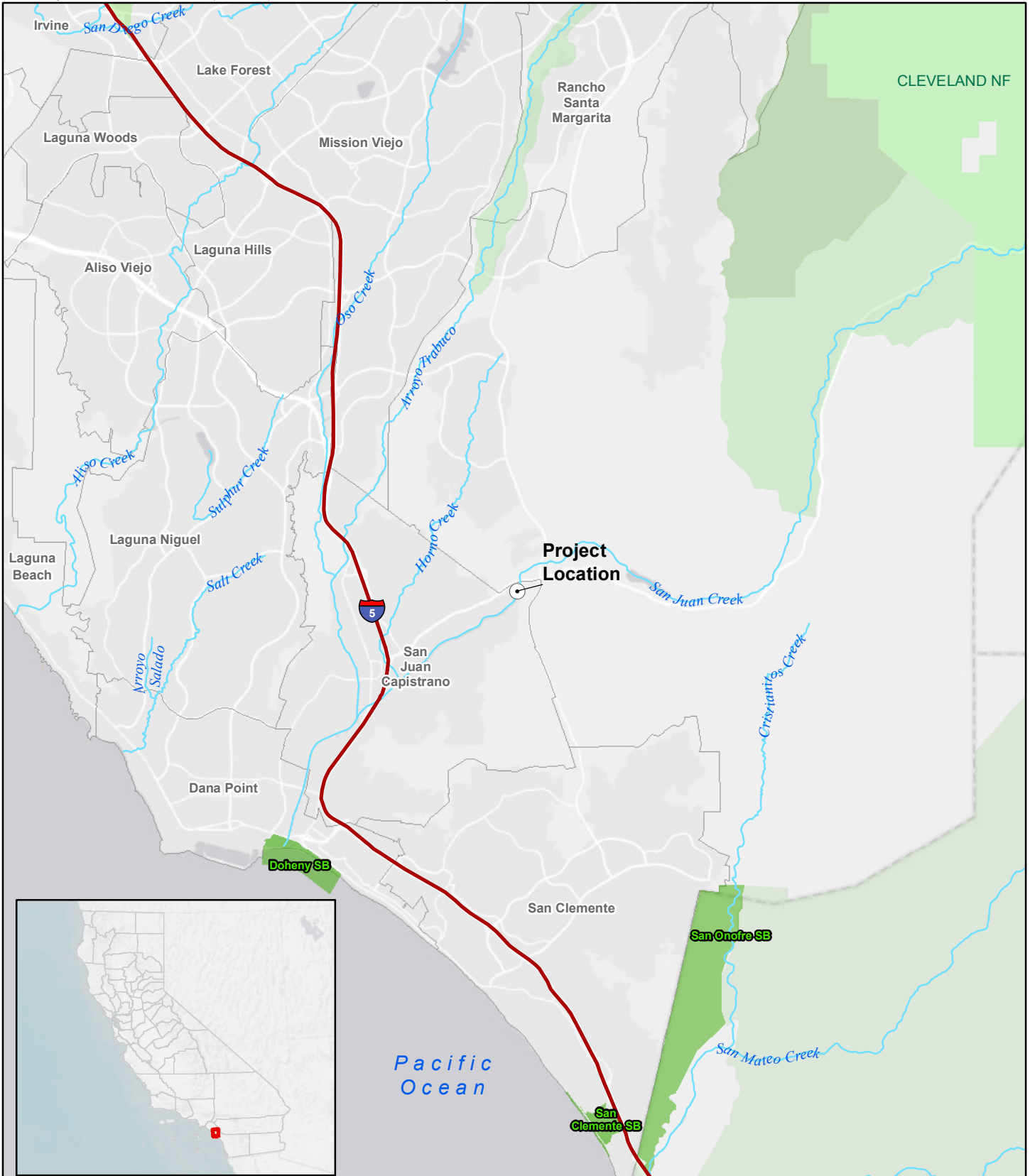
Development Services Department
City of San Juan Capistrano
32400 Paseo Adelanto
San Juan Capistrano, California 92675

September 2019

PREFACE

This **Initial Study** and **Mitigated Negative Declaration** addresses the potential environmental effects of the proposed drainage improvements and restoration activities at the **Rancho Mission Viejo Riding Park** located within the **City of San Juan Capistrano**. The proposed improvements include the removal of an existing Arizona Crossing; streambank restoration within San Juan Creek; and installation of a stormwater capture and treatment system. This Initial Study and Mitigated Negative Declaration was prepared by the City of San Juan Capistrano in fulfillment of requirements as a Lead Agency pursuant to the California Environmental Quality Act (Public Resources Code Section 21000 et seq.).

1. **PROJECT:** Proposed Drainage Improvements and Restoration Activities at the Rancho Mission Viejo Riding Park, San Juan Capistrano
2. **LEAD AGENCY:** City of San Juan Capistrano
3. **CONTACT PERSON & PHONE:** Joe Parco, City Engineer; (949) 443-6353
4. **PROJECT LOCATION:** The City-owned Rancho Mission Viejo Riding Park (Riding Park) is located at 30753 Avenida La Pata in the northeastern region of the City within Orange County, California (Figure 1). The Project site can be regionally accessed from Interstate 5 (I-5), exiting and heading east on Ortega Highway (State Route [SR-] 71) to its intersection with Avenida La Pata. The Riding Park is a multi-use sports and exhibition venue that supports equestrian activities and events, such as English horse shows, Olympic style horse jumping, and rodeos as well as various other recreational activities and events, such as antique car shows, dog shows, soccer tournaments, and other youth athletic events.
5. **APPLICANT:** City of San Juan Capistrano
6. **GENERAL PLAN DESIGNATION:** The General Plan Land Use Element's Land Use Policy Map designates the entire Riding Park – including San Juan Creek, located immediately west of the developed area of the Riding Park – as General Open Space (GOS). This land use designation provides for the possible combined development of several of the uses or the individual development of one of the uses specifically identified by other open space and recreation designations (City of San Juan Capistrano 2002a, 2019).
7. **ZONING:** According to the City of San Juan Capistrano Municipal Code 9-3.309, the Riding Park is zoned Open Space Recreation (OSR), which is intended to provide for the provision of outdoor recreational facilities in accordance with the General Plan (City of San Juan Capistrano 1986, 2002b). In accordance with the General Plan, San Juan Creek is zoned Natural Open Space (NOS), which provides for natural open space land that separates developed areas from one another; preserves natural features like creeks, ridgelines, or hillsides; or includes natural hazards like landslides.
8. **PROJECT DESCRIPTION:** The proposed Project consists of three principal components including: 1) removal of an existing Arizona Crossing (i.e., low-water bridge) across San Juan Creek; 2) streambank restoration along the Riding Park's border with the eastern bank of the creek; and 3) installation of a stormwater capture and treatment system to prevent the incidental discharge of stormwater pollutants. The City is undertaking the proposed Project to restore the natural conditions of San Juan Creek, protect the creek from potential incidental discharge of stormwater pollutants, and convey annual flood events at the Riding Park, while also restoring wetland habitat functions and values and surface water features that are under the jurisdiction of the U.S. Army Corps of Engineers (USACE), San Diego Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW).



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FIGURE 1
Regional Vicinity
Initial Study / Mitigated Negative Declaration
Rancho Mission Viejo Riding Park
Orange County, CA

Project Site and History

The Project site – originally used for agricultural production – was part of Rancho Mission Viejo's Ranch Plan, a 7,694-acre planned development that was proposed by the Rancho Mission Viejo Company and approved by the County of Orange in 2004. This plan designated the Project site for future development as a residential use. However, the 70.6-acre Riding Park was purchased from the Rancho Mission Viejo Company by the City of San Juan Capistrano as part of a 132-acre open space acquisition in January 2010. The acquisition was funded by the City's 2008 Open Space Bond effort (Measure Y) approved by City voters. The Riding Park is now a multi-use sports and exhibition venue that supports equestrian activities/events, such as English horse shows, Olympic style horse jumping, and rodeos, as well as various other recreational activities/events, such as antique car shows, dog shows, soccer tournaments, and other youth athletic events.



The main entrance to the Riding Park is provided off Avenida La Pata at its intersection with Woodstock Way. The primary parking area is located immediately west of the main entrance off Woodstock Way with additional trailer parking (used during equestrian events and other overnight recreational events) located further west off Bridle Trail; both parking areas are unpaved. A secondary pedestrian entrance is provided from Reata Park via the existing Arizona Crossing that traverses San Juan Creek in the northernmost area of the Riding Park.

Existing facilities within the developed area of the Rancho Mission Viejo Riding Park include:

- Small office buildings and trailers;
- Picnic area;
- Large turf field;
- Seven equestrian arenas;
- Maintenance and storage areas;
- Several hundred horse stables (for temporary use only, not boarding); and
- Wash-down racks for horses.

The Riding Park – including all of its existing facilities – is currently operated by Blenheim Facilities Management Company (BFM), a tenant of the City. The Riding Park is open Monday through Friday as well as weekends and holidays during horse shows and other events.

San Juan Creek Arizona Crossing

San Juan Creek – located immediately to the northwest of the developed area of the Riding Park – is an ephemeral (i.e., naturally intermittent) stream with head waters in the Santa Ana Mountains that generally drain towards the south and west until flowing into the Pacific Ocean at its terminus east of Dana Point at Doheny Beach State Park. The stream flows through a natural open space before it is channelized, at its intersection with I-5, and continues through commercial, residential, and industrial land uses to the ocean.

The Arizona Crossing at the Riding Park is a streambed-level, unpaved crossing within San Juan Creek that was initially constructed between 1946 and 1952, prior to development of the Project site as a Riding Park. The approximately 17.5-foot-wide crossing was constructed using approximately 33,488 cubic feet of fill materials including rip-rap fortified with concrete and metal culverts to allow the creek to flow beneath the crossing. Since the development of the Riding Park, the Arizona Crossing has served as an equestrian and pedestrian entrance from Reata Park at the western end of the Riding Park.



San Juan Creek is located immediately to the northwest of the developed area of the Riding Park. This creek is characterized by ephemeral flows supporting existing riparian vegetation.



The existing Arizona Crossing (right) is an unpaved culverted crossing currently serving as access to the developed area of the Riding Park.

Over its 70-year life, the Arizona Crossing has been periodically destroyed by severe winter storm events. For example, in December 2010, a 100-year storm event severely damaged the crossing, prompting the City to repair the bridge to the Riding Park. This involved repairing damaged concrete and installing a 24-inch culvert. The addition of the 24-inch culvert displaced approximately 110 cubic feet of structural material (i.e., gravel, concrete, and rip-rap) and established additional drainage capacity in an effort to preempt future damage from storm events. In January 2017 the crossing was damaged once again during a large winter storm. While the crossing is not currently functional, the structural materials and culverts remain in San Juan Creek.

San Juan Creek Streambank

The same storm event that destroyed the Arizona Crossing in December 2010 washed away the eastern embankment of San Juan Creek along the northeastern border of the Riding Park, resulting in extensive loss of property. Emergency measures were necessary to stabilize the embankment and protect the adjacent stables from erosional damage. Additional emergency measures were required in March 2011 to address additional impacts from subsequent storm events. These activities involved the placement of fill soils (consisting of gravel, pieces of rock, and concrete) along an approximately 1,200-foot-long stretch of property between San Juan Creek and the Riding Park stables (City of San Juan Capistrano 2018). Portions of the fill material began eroding into the creek channel and the streambank began to deteriorate, showing signs of erosion and settlement again in 2017. The subsequent erosion includes rilling and incising as deep as 24 inches in some locations (City of San Juan Capistrano 2018). Additionally, the destabilization of the streambank allowed invasive plant species (e.g., giant reed) to colonize in this area.



The fill material associated with the 2011 emergency repairs is currently unstable and shows signs of cracking and sloughing due to poor compaction at the time of placement.

Riding Park Stormwater Discharge

Within the immediate vicinity of San Juan Creek, the existing grade of the Project site gently slopes toward the creek. Additionally, as described below in *Riding Park Drainage*, existing manmade washes drain the interior of the Riding Park into San Juan Creek. Following the development and operation of the Riding Park, including stables and similar development near the creek, there is now a potential for equestrian waste, equestrian-related products such as bedding material, feed, and other such materials (e.g., trash) to be carried via stormwater runoff and indirectly discharged into San Juan Creek. The polluted discharge generated by, and associated with, routine equestrian activities and use of the stables at the Riding Park could compromise water quality in San Juan Creek and downstream receiving waters. The waters of San Juan Creek downstream of the Riding Park are currently listed under the Clean Water Act (CWA) Section 303(d) List of Water Quality Limited Segments as



Development associated with the Riding Park, including the stables (left), is located in close proximity to San Juan Creek. Stormwater from the development has the potential to carry pollutants into the creek, which is currently listed under the CWA Section 303(d) List of Water Quality Limited Segments.

impaired for pollutants including, but not limited to, indicator bacteria, phosphorus, total nitrogen, dissolved oxygen, selenium, and Dichlorodiphenyldichloroethylene (DDE) (State Water Resources Control Board [SWRCB] 2018).¹

Proposed Project Components

The Project consists of three primary components, described further below. Because designs presented in this document are in the conceptual stage, engineering design and final slope gradients have not yet been determined. Final engineering designs will be reviewed with input from relevant regulatory agencies including USACE, RWQCB, and CDFW pursuant to their permitting requirements under the CWA and California Fish and Game Code.

- 1. Arizona Crossing Removal** – As previously described, the Arizona Crossing was originally constructed with fill materials including rip-rap fortified with concrete and metal culverts to allow the creek to flow beneath the crossing. Nine existing culverts have been installed beneath the bridge – including one culvert with a diameter of 24 inches and a length of 50 feet and eight culverts with diameters of 48 inches and length of 20 feet. The northern-most culvert has been previously dislodged from the crossing structure and partially buried in streambed sediments within the creek bed. Six of the culverts are severely damaged and have been impacted with gravel and sand during severe winter storms since 2010. The remaining two (i.e., southern-most) culverts are intact and functional, conveying dry weather flows. The objective of this Project element is to remove all existing fill and construction debris (e.g., concrete and metal culverts) remaining in the creek to restore this section of the creek bed to its pre-existing conditions.
- 2. Streambank Restoration** – In order to provide a long-term solution to ongoing erosion – previously addressed by emergency streambank stabilization – the City intends to remove the previously added fill soil, re-contour the slope, and stabilize the toe of the slope using rip-rap integrated with biological processes (i.e., plant material). The proposed restoration project would stabilize the eastern bank of San Juan Creek beginning 250 feet south (i.e., downstream) of the Ortega Highway bridge crossing and extending approximately 1,200 linear feet downstream. The existing unstable fill along the streambank would be excavated and re-contoured with a new gradual slope that ranges in width from approximately 20 to 50 feet at a grade of approximately 2:1 to 3:1. The extent of the fill



Cracks in the unstable fill added to the streambank have allowed the growth of non-native species adjacent to the riparian vegetation along San Juan Creek.

¹DDE is a breakdown product of dichlorodiphenyltrichloroethane (DDT), an insecticide used in the past which has since been banned worldwide under the Stockholm Convention after it was discovered to be dangerous to wildlife and the environment (USEPA 2014).

would be pulled back to the original extent of the re-engineered ground surface constructed in 2010. The bottom of the slope would be stabilized with rip-rap that will be installed with gaps between the elements to accommodate planting of trees. The City intends to remove invasive species and restore the native vegetation by interplanting the hardscape with native riparian species. These trees will be provided with a temporary drip irrigation system until they are rooted to a depth that accesses a permanent water table. The remaining slope will be planted with native riparian container plants and seeded with native transitional species, raked in, and covered with jute matting to minimize erosion. The container plants will also be provided with a temporary drip irrigation system and the planted slope will utilize temporary spray irrigation.

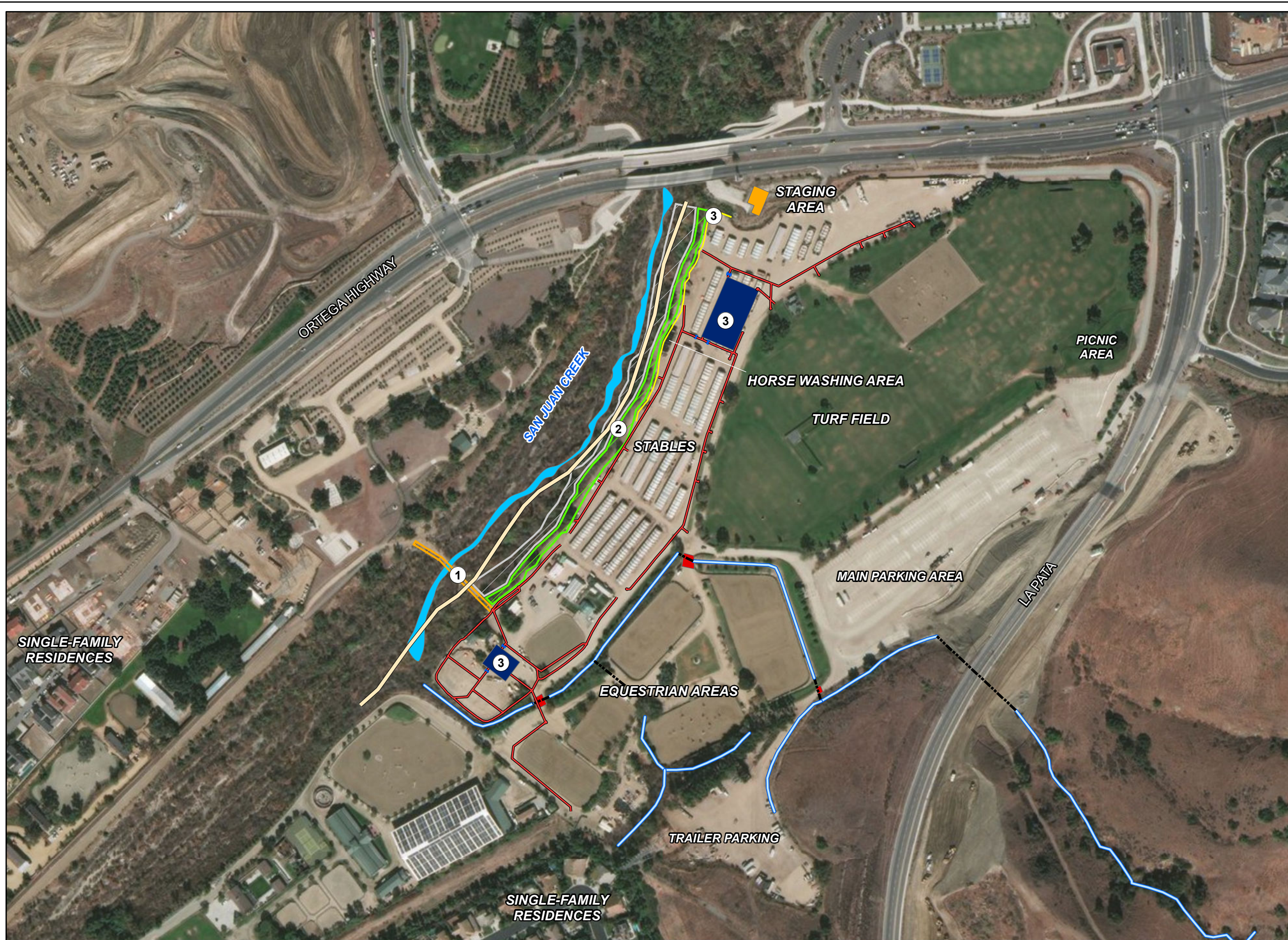
- 3. Proposed CAFO Stormwater Treatment System** – To address National Pollutant Discharge Elimination System (NPDES) water quality requirements associated with Confined Animal Feeding Operations (CAFO) operations at the Riding Park, the City is proposing to develop a stormwater system consisting of an earthen berm, storm drains, and two cisterns (i.e., underground storage tanks) to capture, treat, and potentially reuse stormwater runoff from the Riding Park. If the City continues to pursue development of the proposed CAFO stormwater treatment system, construction would occur following the completion of the Arizona Crossing removal and streambank restoration activities.

This system would include the construction of an earthen berm along the Riding Park's eastern border with San Juan Creek, which would prevent stormwater runoff from the property entering the San Juan Creek. The proposed earthen berm would be installed at the top of the bank along the eastern edge of the creek starting immediately south of the Ortega Highway crossing and extending downstream for approximately 1,500 linear feet. The U.S. Environmental Protection Agency's (USEPA's) CAFO regulations require that the 25-year runoff be captured and treated before it can be discharged to a surface water



Discharge from the CAFO areas of the Riding Park could potentially contribute to existing water quality issues within San Juan Creek, which is considered an impaired waterway for indicator bacteria, phosphorus, total nitrogen, and other pollutants.

(40 Code of Federal Regulations [CFR] §§ 122.23 and 123.25). As such, the top elevation of the berm would be designed to be 1 foot higher, at a minimum, than the existing ground surface in order to retain the 25-year flow on site. The berm would likely be trapezoidal in shape, with a top base that is approximately 1 foot wide. The proposed berm would separate the CAFO areas at the Riding Park from the runoff associated with San Juan Creek and would redirect stormwater at the Riding Park into a system of proposed stormwater collection lines that would ultimately drain into two proposed cisterns.



Project Components

1. Arizona Crossing Removal
2. Streambank Restoration
3. CAFO Stormwater System Installation

- Proposed Storm Drain System
- Approximate OHWM Boundary (based on April 2018 field assessment)
- Culvert
- Ephemeral Drainage
- Proposed Arizona Crossing Removal
- Proposed Bank Planting Area
- Proposed Toe Planting Area with Riprap
- Existing Creek Centerline
- Proposed Construction Staging Area
- Proposed Culvert Expansion
- Proposed Earthen Berm
- Proposed Pretreatment (Contech - Cds)
- Proposed Underground Storage Vault

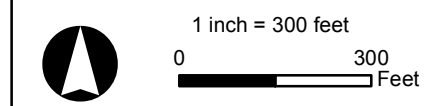
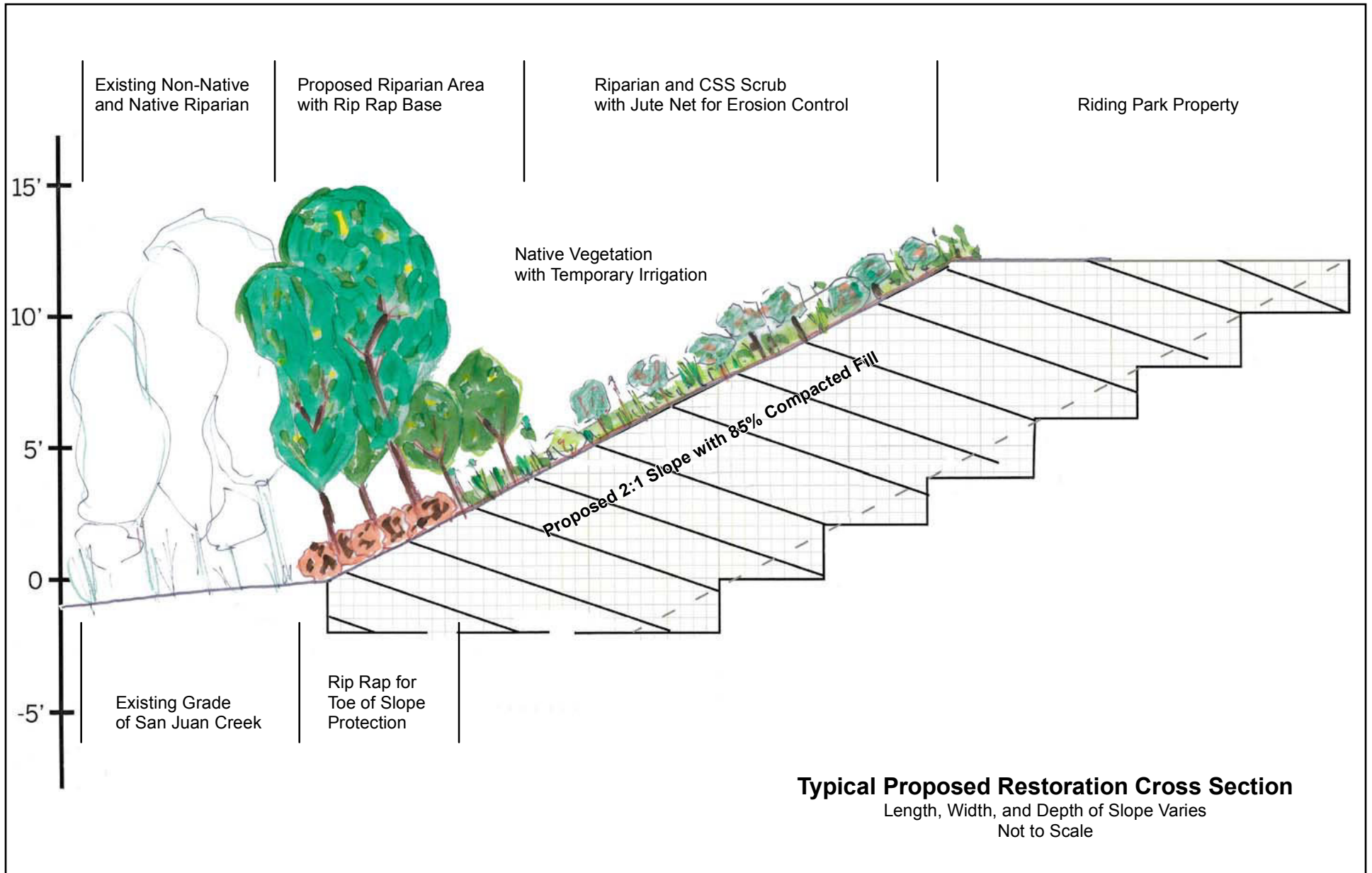


FIGURE 2
 Proposed Project
 Initial Study / Mitigated
 Negative Declaration
 Rancho Mission Viejo Riding Park
 Orange County, CA





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FIGURE 3

Streambank Restoration
 Initial Study / Mitigated Negative Declaration
 Rancho Mission Viejo Riding Park
 Orange County, CA

The system of stormwater collection lines would be constructed along the eastern perimeter of the Riding Park and would collect stormwater from drains located throughout the Riding Park. The stormwater lines would follow the eastern edge of the main Riding Park field to the east of the stables and would parallel the proposed earthen berm immediately west of the stables. Several additional stormwater collection lines are proposed at the southwestern end of the Riding Park.

These stormwater lines would drain into two large subsurface cisterns that would have a total capacity of approximately 3.26 acre-feet and would allow large volumes of stormwater runoff to be retained on-site. One 0.76-acre-foot cistern would be located at the southwestern end of the Riding Park between the existing Arizona Crossing and the equestrian arenas. The northern 2.5-acre-foot cistern would be located less than 200 feet south of the proposed construction staging area (see *Construction* discussion below) and immediately east of the embankment of San Juan Creek. Portable storage sheds, maintained roads, and horse stalls are located above this proposed location. Collected stormwater would be detained, treated, and drained to the existing sanitary sewer lines – recently installed in 2017-2018 – that run along the northern portion of the Riding Park between the stables and the large turf field.

Construction

Temporary construction and staging areas associated with these proposed Project elements would be located on-site within developed or previously disturbed areas of the Riding Park, immediately north of the stables and south of Ortega Highway (see Figure 2). In total, the proposed construction activities would require approximately 21,500 cubic yards (cy) of grading, with approximately 3,600 cy of soil import and 1,000 cy of soil export. All soil excavated for installation of the proposed CAFO stormwater treatment system would be stockpiled within the construction and staging area for reuse on-site as backfill for the earthen berm and other drainage patterns. Additionally, approximately 700 cy of concrete, riprap, and rubble would be exported from the Project site following removal of the Arizona Crossing and the streambank restoration would require import of approximately 2,000 tons of rip-rap as well as 128 5-gallon trees and 928 1-gallon container plants for native revegetation. Construction of the proposed Project – including all three primary components – is anticipated to result in an estimated disturbance footprint of approximately 16.3 acres. It is estimated that 20 to 30 construction workers would be on-site for the duration of the construction activities.

Construction of the three Project components would require truck trips related to sediment movement, materials delivery, and construction worker commutes, including the following:

- Removal of the Arizona Crossing would require approximately 22 truck trips per day (including travel both on and off-site) for four weeks to haul concrete and other materials off-site;
- Restoration of the San Juan Creek bank would require approximately four heavy haul trips per day for approximately eight weeks to export the poorly compacted soil;
- Soil import would require less than two trips per day during the eight-week period of streambank restoration;
- Import of the rip rap would require approximately three trips per day for a period of eight weeks;

- Import of the 5-gallon trees and 1-gallon plants would require 6 trips total;
- Approximately 50 trips per day would occur during the 3-year construction period related to worker vehicle commutes with an estimate of 25 construction workers;
- Construction equipment would presumably stay on site for the duration of their usage; therefore, two trips per equipment vehicle would result in a total of 20 construction equipment trips.

Construction Timing

Construction activities would occur intermittently over an estimated 3-year period from July 1, 2020 through July 1, 2023. Construction activities associated with the Arizona Crossing removal and streambank restoration would occur over a 4-month period and would be completed by no later than 18 months following the acquisition of all required permits (see Table 1). Construction activities associated with the installation of the proposed CAFO stormwater treatment system would be completed in approximately 24 months, following completion of the Arizona Crossing removal and streambank restoration activities. Although public service maintenance work is exempt from limitations on construction hours, to the maximum extent feasible, the City would voluntarily limit Project construction activities to the hours between 7:00 am to 6:00 pm during weekdays, consistent with requirements codified in the City's Noise Ordinance (City of San Juan Capistrano Municipal Code 8-2.04). Construction would only occur on Saturdays, between 8:30am and 4:30pm, if necessary, to avoid the wet season. Consistent with the City's Noise Ordinance, construction activities would not occur on Sundays or on federal holidays. Additionally, all construction-related vehicle trips would be limited to the hours between 7:00 am and 4:30 pm to avoid traffic conflicts during the PM peak hour (see *Transportation and Traffic*).

Construction Equipment

Construction equipment that would be used for the proposed Project include the following:

- | | |
|---|---|
| • Grader | • Chainsaws |
| • Tractor | • Backhoe (with claw, ripper, compactor, and other attachments) |
| • Excavator (with jack, claw, and other attachments) | • Concrete mixer |
| • Small bobcats | • Soil processor |
| • Dump trucks | • Hand-held compactors with vibrating plates |
| • Small truck to haul concrete and other debris from the Arizona Crossing | • Mechanized auger |
| • Front-end loader | • Hydro-seed Sprayer |

9. **SURROUNDING LAND USES:** The Project site is located along the eastern limits of the City of San Juan Capistrano, immediately south of Ortega Highway (refer to Figure 1). Properties to the north and east are located outside of the City limits in unincorporated Orange County. The Project site's eastern boundary is formed by Avenida La Pata, with undeveloped open space further east (refer to Figure 1). Single-family residential uses and the Blenheim Farms equestrian estate are located south of the Project site. West of the Riding Park and San Juan Creek is Reata Park and Event Center and additional single-family residential housing, with some agricultural operations associated with Rancho Mission Viejo further west. Properties north of Ortega Highway are also within Rancho

Mission Viejo and are currently developed as single-family residential, recreational parks and open space, and commercial uses (e.g., Starbucks, Chase Bank, etc.).

- 10. REQUIRED AGENCY APPROVALS:** Implementation of the proposed Project would be subject to review and approval by agencies with jurisdiction over resources that might be affected by the Project. The following agency approvals and/or permits may be required to implement the proposed Project (see Table 1).

Table 1. Discretionary Permits Potentially Required for the Proposed Improvements

Agency	Permits and Authorizations Required	Activities Subject to Regulations
USACE	Nationwide Permit (NWP) under Section 404 of the Clean Water Act	Placement of dredge or fill materials into waters of the U.S.
USFWS	Consultation under Section 7 of the Federal Endangered Species Act (ESA)	Potential impacts to federally designated sensitive species
RWQCB	Water Quality Certification under Section 401 of the Clean Water Act and Waste Discharge Requirements	Certification of NWP and discharges of waste that could affect waters of the state
SWRCB, RWQCB	Compliance with the NPDES General Construction Permit, Order No. 2009-0009-DWQ through the preparation of a Stormwater Pollution Prevention Plan (SWPPP)	Stormwater discharges associated with construction and land disturbance activities
CDFW	Lake and Streambed Alteration Agreement (LSAA) Section 1602 Permit	Diversion or obstruction of the natural flow of any river, stream or lake; deposition of debris, waste or other materials that could pass into any river, stream, or lake.
CDFW	Incidental Take Permit, Fish and Game Code, Sections 2081(b) or (c) Consistency Determination 2080.1	Potential incidental take of state-listed endangered species
Federal Agencies USACE = U.S. Army Corps of Engineers USFWS = U.S. Fish and Wildlife Service		State Agencies SWRCB = State Water Resources Control Board RWQCB = Regional Water Quality Control Board CDFW = California Department of Fish and Wildlife

- 11. PREVIOUS ENVIRONMENTAL DOCUMENTATION:** Uses proposed under Rancho Mission Viejo's Ranch Plan were addressed as part of Final Environmental Impact Report (EIR) 589, certified by the County of Orange in 2004. Addendum No. 1 to Final EIR 589 further addressed specific uses planned for Planning Area 1 with the approval of the Master Areas Plan and Subarea Plans. Other more recent environmental documentation prepared for the Project site include an Initial Study / Mitigated Negative Declaration (IS/MND) for the proposed construction of a 12-inch water pipeline (City of San Juan Capistrano 2013) as well as the preparation of an IS/MND for additional water and sanitary sewer facilities (San Juan Capistrano 2017). More recent emergency actions – including emergency dredging in January 2019 – were approved via a Notice of Exemption (NOE) and associated emergency permits. No other known environmental documentation is applicable to the proposed Project and site.

12. CONSULTATION:

A. Federal, State, and Other Local Agencies

- Eric Sweeny, USACE, Regulatory Project Manager
- Eric Chan, CDFW South Coast Region, Environmental Scientist
- Darren Bradford, RWQCB, Environmental Scientist
- Christine Medak, USFWS, Biologist

B. City of San Juan Capistrano

- Joe Parco, City Engineer
- Sergio Klotz, Environmental Administrator

C. Documents & Resources: See *References* below.

13. SUMMARY OF ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages:

- | | | |
|--|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology and Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards and Hazardous Materials |
| <input type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation and Traffic | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities and Service Systems | <input checked="" type="checkbox"/> Mandatory Findings of Significance | |

14. DETERMINATION: (To be completed by lead agency) Based on this initial evaluation:

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

15. DETERMINATION: (Section 9-2.201 of SJC Municipal Code): The IS/MND for this project has been reviewed and the environmental determination is hereby approved:


Sergio Klotz, Environmental Administrator



Date

16. ENVIRONMENTAL CHECKLIST

This section analyzes the potential environmental impacts which may result from the proposed Project. For the evaluation of potential impacts, the questions in the IS are stated and answers are provided according to the analysis undertaken as part of the IS. The analysis considers the proposed Project's short-term impacts (i.e., construction-related), and its long-term (i.e., operational) impacts. For each question, the following should be provided:

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a Lead Agency cites in the parentheses

following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the proposed Project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on Project-specific factors as well as general standards (e.g., the proposed Project would not expose sensitive receptors to pollutants, based on a Project-specific screening analysis).

- 2) All answers must take account of the whole proposed Project, including off-site and on-site, indirect and direct construction and operational impacts, and cumulative impacts.
- 3) Once the Lead Agency has determined that a particular physical impact may occur, then the IS must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The Lead Agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level. (Mitigation measures from "Earlier Analyses," as described below, may be cross-referenced.)
- 5) Earlier analyses may be used where, pursuant to the tiering, Program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Incorporate into the IS references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Include a source list and list of individuals contacted or consulted.
- 8) This form is consistent with the CEQA Guidelines and all IS performed on projects within the City must use this format.
- 9) The explanation of each issue should identify: a) the significance criteria or threshold, if any, used to evaluate each question; and b) the mitigation measure identified, if any, to reduce the impact to less than significance.

16.1 AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Principal public views of the Project site are provided along portions of Ortega Highway and Avenida La Pata. The Community Design Element of the City’s General Plan designates all arterial roadways within the City as Scenic Corridors. Avenida La Pata and Ortega Highway are both arterial roads and as such both are designated Scenic Corridors. The Project site’s location at the City’s eastern boundary places it at a major gateway between the City to the west and the rural, panoramic views of the open space, agricultural lands, San Juan Creek watershed, and portions of Rancho Mission Viejo to the east. Therefore, any substantial modifications at the Project site that adversely affect the viewshed from Ortega Highway or Avenida La Pata could be considered significant.

Would the project:

- a) **Have a substantial adverse effect on a scenic vista? Less Than Significant Impact.** Implementation of the proposed Project would include short-term, temporary construction activities that would result in minor, temporary impacts to the viewshed in the Project vicinity. The proposed Project staging area – located at the northern end of the Riding Park – would be briefly visible to passing motorists from portions of Ortega Highway immediately north of the proposed staging area (approximately 40 feet; refer to Figure 2). Equipment would be staged in this location for the duration of the proposed streambank restoration, which is expected to last less than 85 days. However, this area is



The construction and staging area is visible from Ortega Highway, but has been previously disturbed and is characterized by existing gravel and fencing. Construction equipment and materials would not substantially obscure views of the mountains in the background.

currently developed as a gravel entrance into the Riding Park, with 6-foot-tall chain-link fencing. Staging at this location would not require any long-term modifications. Further, construction equipment and materials would be low-profile (e.g., an excavator is less than 9 feet in height) and would not substantially obscure existing views of the mountains in the background. Construction crews and heavy construction equipment may also be partially visible from Avenida La Pata as well as public trails in the distance during short-term ground disturbing activities (e.g., excavation, grading, etc.). However, their scale and distance from viewers (i.e., 0.25 miles at the nearest potential viewing location) along these public view corridors are such that they would not substantially alter the visual character of the Project site or local viewshed. Further, construction activities and associated staging of construction equipment and materials would be temporary, lasting approximately 4 months for the removal of the Arizona Crossing and streambank restoration as well as approximately 24 months for the proposed CAFO stormwater treatment system. Following the completion of construction activities all associated equipment and materials would be removed and thus, construction activities would not result in substantial temporary impacts or any permanent impacts on scenic vistas provided from Ortega Highway or Avenida La Pata.

Permanent improvements to San Juan Creek – including the removal of the Arizona Crossing and the streambank restoration – as well as the construction of an earthen berm associated with the proposed CAFO stormwater treatment system would be potentially visible by hikers along public hiking trails and other recreational users at the Riding Park. Due to the number of trees and density of other vegetation along the creek bed and bank as well as the rolling topography of the Project area, views of the permanent improvements would be limited from Ortega Highway and Avenida La Pata. Proposed in-kind infrastructure improvements (i.e., improvements that are consistent and compatible with the existing conditions on-site) would not substantially affect the overall visual appearance of San Juan Creek or the views provided from the Riding Park. However, the proposed Project features are designed to restore the creek bed and banks to pre-existing conditions prior to construction of the Arizona Crossing and emergency repairs to the streambank. For example, the streambank would be revegetated with native plant species. Thus, the Arizona Crossing removal and streambank restoration would result in minor beneficial impacts to scenic views from Ortega Highway and the Riding Park. The earthen berm would be low-lying and would not interrupt near-ground, mid-ground, or background views. Additionally, the buried elements of the proposed Project, including the cisterns and stormwater lines would not be visible. Only the relatively small ancillary features (e.g., drain inlets and metering station) would be above ground. Overall, the proposed Project would have less than significant short- and long-term impacts on scenic vistas.

- b) ***Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway? Less Than Significant Impact.*** Construction activities associated with the Arizona Crossing removal and streambank restoration would impact a total of 64 existing trees and other riparian vegetation. City of San Juan Capistrano Municipal Code 9-2.349 regulates the removal of trees associated with new development projects, utility easements, common landscape areas, nonresidential projects, City facilities and rights-of-way, individual residential lots, and any setback adjacent to a public or private right-of-way or trail easement. Implementation of the proposed Project – which would include tree removal associated with the streambank restoration activities – would require City permits for tree removal and trimming activities. Construction activities would comply with all City standards and procedures for tree removal

and thinning, pursuant to City of San Juan Capistrano Municipal Code 9-2.349. Additionally, these areas within and adjacent to San Juan Creek would be revegetated with native plant species to be consistent with the existing native riparian habitat along the creek. The existing trees that require removal would be replaced at a 2:1 ratio. The replacement trees would be comprised of 128 native trees in 5-gallon containers. While oak and willow trees can grow up to 24 inches per year, particularly during initial establishment, the replacement trees would generally take years to mature to a size and coverage equivalent to the existing trees. As such, over the near- to mid-term, the replacement trees would be smaller than mature trees that presently line the creek. However, an additional 928 1-gallon container plants comprised of native vegetation would be used to accomplish revegetation of the creek bank. Therefore, following restoration, the streambank would continue to be lined with thick vegetation. Construction associated with the proposed Project would not disturb, damage, or obstruct any other scenic resources at the Project site. With the exception of the Arizona Crossing removal, implementation of the proposed Project would not disturb any existing structures at the Project site. Additionally, there are no rock outcroppings within the Project site. Therefore, implementation of the proposed Project would have a less than significant impact on scenic resources.

- c) ***In non-urbanized areas, substantially degrade the existing visual character or quality of the site and its surroundings? Less Than Significant Impact.*** There are currently pieces of damaged and washed away concrete, metal pipe culverts, and substantial sedimentation within San Juan Creek, immediately west of the Riding Park. The top of the streambank on the east side of the creek is cracking and shows signs of erosion and settlement. Implementation of the Arizona Crossing removal and streambank restoration are expected to have beneficial impacts to the visual character and overall quality of San Juan Creek, as they include revegetation of the creek bed and bank with native plants, restoring the creek to its pre-existing conditions. Over the long-term the impacted trees would be replaced at a 2:1 ratio; however, as described in Response 16.1(a) these trees would take years to reach the size of the existing trees lining the creek. As such, over the near- to mid-term views of San Juan Creek would be characterized by a thinner vegetation canopy along the Riding Park. However, a total of 128 5-gallon trees and 928 1-gallon native plants would be used to revegetate the creek bank. As previously described, the proposed earthen berm would be constructed using entirely native soil and would be low-lying, generally consistent with its surroundings. The proposed storm drains and cisterns would be installed entirely underground. Only the very relatively small ancillary features (e.g., drain inlets and metering station) would be above ground. Therefore, the proposed Project would result in minor improvements to the existing visual character and quality of the Riding Park and the surrounding area. Impacts would be less than significant.
- d) ***Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? No Impact.*** Construction activities associated with the proposed Project would be limited to the hours between 7:00 am to 6:00 pm during weekdays and, if necessary, between 8:30 am to 4:30 pm on Saturdays. Because construction would occur during daylight hours, construction lighting is not anticipated to be necessary. If necessary, construction lighting shall be shielded and directed toward the construction and staging areas to prevent spill over into adjacent properties and/or sensitive habitat areas, as a condition of approval and in compliance with permit requirements (refer to Table 1). The proposed Project would not add any new permanent artificial lighting or any other sources of light or glare to the Project site.

The proposed Project would have no significant impact on aesthetics.

16.2 AGRICULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board (CARB).				
Would the Project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g])?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the project:

- a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? No Impact.** The California Department of Conservation's Farmland Mapping and Monitoring Program identifies categories of agricultural resources that are significant and require special consideration. According to the Farmland Map, the Project site is not located in an area designated as Prime Farmland, Unique Farmland or Farmland of Statewide Importance (as defined by Government Code Section 51201[c] and 56064) or Agricultural Land (as defined by Government Code Section 56016). Further, none of the proposed Project elements would result in permanent ground disturbance (e.g., paving) or otherwise convert existing farmland to non-agricultural use. Therefore, there would be no impact to farmland associated with the implementation of the proposed Project.
- b) **Conflict with existing zoning for agricultural use, or a Williamson Act Contract? No Impact.** The Project site is neither zoned for agricultural uses nor under a Williamson Act Contract. Therefore, the proposed Project would not conflict with existing zoning for agricultural use, or a Williamson Act Contract.

- c) **Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g])? No Impact.** The Project site is zoned for Open Space Recreation and Natural Open Space. The Project site and vicinity are not zoned for forest land or timberland. Therefore, the proposed Project would not conflict with existing zoning for forest land or timberland.
- d) **Result in the loss of forest land or conversion of forest land to non-forest use? No Impact.** Refer to Response 16.2(c) above.
- e) **Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? No Impact.** The Project site is located on open space and recreational lands with no zoned agricultural land, forest land, or timberland. Further, the Project site is not currently used as farmland or forest land and the proposed Project would not result in a change in use at the existing Project site or surrounding area. Therefore, the proposed Project would not result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest land. No impact would occur with the implementation of the proposed Project.



The nearest agricultural use to the Project site is the citrus groves at Reata Park, located more than 400 feet west of the Riding Park. This area would not experience any direct or indirect adverse impacts associated with the proposed Project.

The proposed Project would have no adverse impacts on agricultural resources.

16.3 AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.				
Would the Project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under the applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The Project site is located within the South Coast Air Basin (SCAB), which is governed by the South Coast Air Quality Management District (SCAQMD). Orange County is currently in *nonattainment* for ozone (O₃), both 1-hour and 8-hour, and particulate matter (PM_{2.5}) under the National Ambient Air Quality Standards (NAAQS) (USEPA 2019). Under the California Ambient Air Quality Standards (CAAQS), the SCAB is in nonattainment for O₃, PM_{2.5}, and PM₁₀ (CARB 2018a). The SCAQMD has established significance thresholds for construction as well as for operational emissions for six categories of pollutants, including nitrous oxides (NO_x), volatile organic compounds, (VOC), particulate matter equal to or less than ten microns in diameter (PM₁₀), and 2.5 microns in diameter (PM_{2.5}), sulfur oxides (SO_x), carbon monoxide (CO), and lead. These thresholds are based on the potential adverse short-term health effects of each pollutant.

Toxic Air Contaminants (TACs)² are in ambient air, especially in urban areas, and are commonly caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). Diesel exhaust is the predominant TAC in urban air and is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average).

The SCAQMD and the Southern California Association of Governments (SCAG) are responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the SCAB. A project is consistent with the AQMP if it furthers one or more policies or/and does not obstruct

² TACs refers to a diverse group of air pollutants regulated at the regional, state, and federal level because of their ability to cause adverse effects on human health. Ambient air quality standards have not been set for TACs because of the diverse number of air toxics and the fact that their effects on health tend to be localized rather than regional.

other policies. The SCAQMD's CEQA Air Quality Handbook (1993) identifies two key indicators of consistency:

- Whether the project would result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay timely attainment of National Ambient Air Quality Standards (NAAQS) or the interim emission reductions specified in the AQMP, except as provided for CO in Section 9.4 for relocating CO hot spots.
- Whether or not the project would exceed the assumptions in the AQMP in the year of project build-out.

Construction Emissions

This section includes a description of existing air quality conditions in the Project vicinity and analyses of potential short-term air quality impacts of the proposed Project. The methods of analysis for construction, mobile source, odor, and TAC emissions are consistent with the guidelines of the SCAQMD. Air emissions were estimated for the proposed Project using the California Emissions Estimator Model (CalEEMod) version 2016.3.1. The following discussion of the Project's potential effects on air quality draws on the results of that analysis, which are presented in their entirety in Appendix A.

Project construction was conservatively estimated to occur over a period of approximately 3 years for all Project components (refer to *Construction* for construction timing). The equipment anticipated to be active during that period (i.e., backhoe, loader and excavator, with some trucking to import materials and dispose of sediment) were applied as assumptions for input to the CalEEMod analysis to calculate projected construction and operational emissions resulting from the proposed Project. Additionally, the number of construction vehicle and heavy truck trips projected to occur during construction were calculated based on the number of construction worker trips and the amount of material to be imported and exported on and off-site over the 3-year period of construction (refer to *Construction*). Peak daily construction emissions projected for the construction period are presented in Table 2. As shown in Table 2, the proposed Project's construction emissions would be well below SCAQMD thresholds.

Table 2. Peak Construction Emissions

Activity	Pollutant Emissions (lbs/day)					
	VOG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Peak Construction	4.13	37.37	28.60	0.54	10.67	5.65
SCAQMD Thresholds	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No

Source: Wood 2019a

Long-Term Operational Emissions

The principal sources of operational emissions usually include vehicular trips generated by a new land use, combustion of natural gas for water and space heating of new structures, the use of landscaping equipment, and architectural coatings during maintenance of structures.

Implementation of the proposed Project would not result in permanent development that would generate trips or other operational emissions associated with heating, cooling, etc. However, operation of the proposed CAFO stormwater treatment system would generate minor emissions due to maintenance and energy use to treat stormwater. However, these operations and maintenance activities would be negligible, relative to the existing emissions at the Riding Park (e.g., mobile emissions associated with visitors at the park, stationary source emissions associated with existing facilities), existing regional emissions sources within the SCAB, and the level of emissions considered significant by the SCAQMD (refer to Table 2).

The responses to the following questions are based on the analysis and thresholds of significance presented above.

Would the project:

a) **Conflict with or obstruct implementation of the applicable air quality plan? No Impact.**

As shown in Table 2, construction of the proposed Project components would not substantially increase any sources of air pollutant emissions and projected construction emissions would remain well below the SCAQMD thresholds of significance. As such, the Project's minor, short-term construction emissions would not exceed thresholds identified within the AQMP. Implementation of the proposed Project would neither introduce new operational sources of emissions nor substantially change existing operations at the Riding Park. Following completion of construction, minimal ongoing maintenance would be required to ensure that the improvements (e.g., proposed CAFO stormwater treatment system) remain in good condition, particularly following heavy storm events. However, these maintenance activities would be provided by existing operations staff at the Riding Park and would involve hand held tools or short-term, temporary use of heavy construction equipment. Therefore, operational emissions associated with the proposed Project would be negligible. As such, the proposed Project would not result in significant local or regional air quality impacts based on the SCAQMD thresholds of significance. The AQMP is based on emission projections, which assume land use composition and intensity from local general plan Land Use Elements. Because the proposed Project does not include any change in land use or activities at the Project site and would not result in an increase in overall demand for the Riding Park or water use at the Project site, the Project would not induce growth (directly or indirectly) that might be inconsistent with the City's General Plan or AQMP (see Response 16.16[a]).

b) **Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under the applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? Less Than Significant Impact.**

Based on the scale of the proposed Project, construction and operational emissions would be well below the SCAQMD's significance thresholds for individual criteria pollutants (refer to Table 2). Thus, the Project would not violate air quality standards or contribute substantially to an air quality violation. A significant cumulative impact would occur if the proposed Project would, in conjunction with other projects, result in a cumulatively considerable contribution to pollutants for which the region is in *nonattainment* with respect to the NAAQS or CAAQS. Because Orange County is in *nonattainment* with respect to O₃ and PM_{2.5}, there could be a cumulatively significant impact if the proposed Project and related projects led to an exceedance of these standards or contributed to an existing exceedance. With regard to determining the significance of a project's contribution to cumulative impact, SCAQMD

recommends that the project's potential contribution be assessed utilizing the same significance criteria as those for project-specific impacts (SCAQMD 1993). Because the proposed Project would not generate construction or operational emissions that exceed, or even approach, the SCAQMD recommended daily thresholds for project-specific impacts, the construction and operational emissions of the proposed Project would not be cumulatively considerable and would result in a less than significant impact.

- c) ***Expose sensitive receptors to substantial pollutant concentrations? Less Than Significant Impact.*** Sensitive populations (i.e., children, senior citizens and acutely or chronically ill people) are more susceptible to the effects of air pollution than the general population. Land uses considered to be sensitive receptors typically include residences, schools, and parks. The nearest residences to the Project site are located over 120 feet away in the Paseo Ranchero and Via Limon neighborhoods. The nearest school – San Juan Hills High School – is located approximately 0.75 miles south of the Project site. Given its recreational uses, the Riding Park itself may also be considered a sensitive receptor. However, the Project would not generate construction or operational emissions in sufficient quantities to expose sensitive receptors to substantial pollutant concentrations.

Maximum daily emissions during construction would be well below the SCAQMD's thresholds (refer to Table 2). As such, the Project's construction emissions would not be substantial enough to expose sensitive receptors to significant pollutant concentrations. Additionally, construction of proposed facilities would not generate a significant number of diesel-fueled vehicular trips or other diesel-fueled emissions and would therefore not be a significant source of TACs. Further, construction emissions would be temporary and of relatively short duration. As previously described, the proposed Project would result in negligible levels of operational emissions associated with maintenance of the proposed facilities and stormwater disposal. Therefore, operational emissions would be negligible and long-term Project-related impacts to sensitive receptors would be less than significant.

- d) ***Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? Less Than Significant Impact.*** Odors may be generated from vehicles and/or equipment exhaust emissions during construction of the proposed Project. Odors produced during construction would be localized and attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment. Such odors are temporary, consistent with standard construction activities, and would not affect substantial numbers of people in the vicinity of the construction area – particularly given that the construction areas would be located more than 120 feet from residents and more than 100 feet from visitor-supporting areas (e.g., stables) with intervening vegetation and roadways. Therefore, impacts associated with odors during construction would be considered less than significant.

Operation of the proposed Project would not result in other emissions, including odors, which would adversely affect residents in the vicinity or users of the Riding Park. In fact, the proposed stormwater improvements (i.e., proposed CAFO stormwater treatment system) would capture and convey stormwater runoff from the Riding Park into the proposed underground cisterns. Implementation of these improvements would prevent flooding and ponding of stormwater from the Riding Park's equestrian uses. As such, operation of the proposed Project may result in beneficial impacts by potentially reducing odors.

The proposed Project would not result in significant impacts to air quality at the regional or local levels. However, to assure compliance with SCAQMD rules and City requirements, the following Best Management Practices (BMPs) would be implemented as a part of the proposed Project:

BMP AQ-1: During clearing, grading, earth moving, or excavation operations, excessive fugitive dust emissions shall be controlled by regular watering or other dust preventive measures using the following procedures, as specified in SCAQMD Rule 403:

- All material excavated or graded shall be sufficiently watered to prevent excessive amounts of dust.
- Watering shall occur at least twice daily with complete coverage, preferable in the late morning and after work is done for the day.
- All material transported on-site or off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust.
- The area disturbed by cleaning, grading, earth moving, or excavation operations shall be minimized so as to prevent excessive amounts of dust.

These control techniques would be indicated in Project specifications. Compliance with this measure would be subject to periodic site inspections by the City.

BMP AQ-2: Emissions from construction equipment vehicles shall be controlled by maintaining equipment engines in good operating condition and in proper tune per manufacturer's specifications, and to the satisfaction of the City Engineer. Compliance with this measure may be subject to periodic inspections of construction equipment vehicles by the City.

16.4 BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 CDFW or the USFWS?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 CDFW or USFWS?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Areas of potential disturbance associated with the proposed Project are almost entirely within areas previously disturbed by prior construction activities at the Riding Park (i.e., original construction of the Arizona Crossing, construction of the Riding Park, and emergency streambank stabilization footprint along San Juan Creek). Most of the Riding Park has been previously graded and now includes unpaved roads and parking lots, stables, fields, and landscaping.

In January 2019, Wood conducted a biological resources assessment which included a literature review, vegetation mapping, and field reconnaissance survey (see Appendix B). A jurisdictional wetland delineation was conducted separately for the proposed Project (see Appendix C). The entire Project site was surveyed, including a portion of San Juan Creek and the ephemeral drainage that is tributary to San Juan Creek.

Vegetation

Three vegetation communities were mapped within the Project site as defined by the Sawyer, Keeler-Wolf method, which is recommended by CDFW as well as the California Native Plant Society (CNPS). Vegetation communities within the Project site include black willow thicket, disturbed/developed land, and landscaping (see Figure 4). Black willow thicket represents a tree and shrub-dominated riparian community found along San Juan Creek. This vegetation

community is composed largely of deciduous species that range from 5 to 20 feet in height, commonly including Goodding’s black willow (*Salix gooddingii*), mulefat (*Baccharis salicifolia*), blue elderberry (*Sambucus nigra* ssp. *caerulea*), desert wild grape (*Vitis girdiana*), and arroyo willow (*Salix lasiolepis*). The Project area also contains large stands of the invasive giant reed (*Arundo donax*). The disturbed/developed land community within the Project site represents areas that have been previously developed, cleared, or otherwise altered, including roadways, existing buildings, stables, and other equestrian uses. Landscaping within the Project site includes areas of non-native vegetation including lawn, and planted shrubs and trees. Common plants observed within the site include freeway iceplant (*Carpobrotus edulis*), Peruvian pepper tree (*Schinus molle*) and golden wattle (*Acacia longifolia*).



Previous poorly compacted fill along the creek’s eastern embankment resulted in cracks that have allowed colonization of invasive species, such as the giant reed.

The literature review of the California Natural Diversity Database (CNDDDB), CNPS Inventory, and other biological reports identified a total of 31 special status biological resources known to occur in the general vicinity of the Project site, including one vegetation community, nine plants, three invertebrates, one fish, two amphibians, five reptiles, eight birds, and two mammals. However, several of these identified special status biological resources were determined to be absent from the Project site, including the vegetation community (Southern Sycamore Alder Riparian Woodland), one plant (Nuttall’s scrub oak [*Quercus dumosa*]), and two bird species (yellow-breasted chat [*Icteria virens*] and coastal California gnatcatcher [*Polioptila californica*]). The remaining special status plant and animal species with the potential to occur within the Project site are listed in Table 3 and Table 4 below.

Table 3. Special Status Plant Species Potential for Occurrence

Species	Status	Probability of Occurrence
Coulter’s saltbush (<i>Atriplex coulteri</i>)	S1S2, CNPS: 1B.2	Low
Thread-leaved brodiaea (<i>Brodiaea filifolia</i>)	FT, SE, S1, CNPS: 1B.1	Low
Intermedius intermediate mariposa-lily (<i>Calochortus weedii</i> var.)	S2, CNPS: 1B.2	Low
Many-stemmed dudleya (<i>Dudleya multicaulis</i>)	S2, CNPS: 1B.2	Low
Sticky dudleya (<i>Dudleya viscida</i>)	S2, CNPS: 1B.2	Low
California satintail (<i>Imperata brevifolia</i>)	S3, CNPS: 2B.1	Low
White rabbit-tobacco (<i>Pseudognaphalium Leucocephalum</i>)	S2, CNPS: 2B.2	Moderate
Salt spring checkerbloom (<i>Sidalcea Neomexicana</i>)	S2, CNPS: 2B.2	Low
Source: Wood 2019b		
Notes:		
FT: Federally Threatened	CNPS Designations	
SE: State Endangered	1B: Plants rare, threatened, or endangered in California and elsewhere	
CFDW State Rankings	2B: Plants rare, threatened, or endangered in California, but more common elsewhere	
S1: Critically Imperiled	Subdivisions within Categories (threat ranks)	
S2: Imperiled	0.1: Seriously threatened in California	
S3: Vulnerable	0.2: Moderately threatened in California	
	0.3: Not very threatened in California	



- Project Components**
1. Arizona Crossing Removal
 2. Streambank Restoration
 3. CAFO Stormwater System Installation
- Proposed Storm Drain System
 - Approximate OHWM Boundary (based on April 2018 field assessment)
 - - - Culvert
 - Ephemeral Drainage
 - ▭ Proposed Arizona Crossing Removal
 - ▭ Proposed Bank Planting Area
 - ▭ Proposed Toe Planting Area with Riprap
 - Existing Creek Centerline
 - ▭ Proposed Construction Staging Area
 - ▭ Proposed Culvert Expansion
 - ▭ Proposed Earthen Berm
 - ▭ Proposed Pretreatment (Contech - Cds)
 - ▭ Proposed Underground Storage Vault
- Vegetation Communities**
- ▭ Black Willow Thicket
 - ▭ Disturbed/Developed
 - ▭ Landscaped

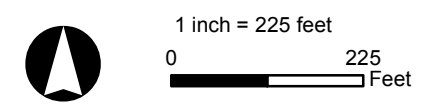


FIGURE 4
 Vegetation Communities
 Initial Study / Mitigated
 Negative Declaration
 Rancho Mission Viejo Riding Park
 Orange County, CA



Table 4. Special Status Wildlife Species Potential for Occurrence

Species	Status	Probability of Occurrence
Invertebrates		
San Diego fairy shrimp (<i>Branchinecta Sandiegonensis</i>)	FE, S2	Low
Riverside fairy shrimp (<i>Streptocephalus woottoni</i>)	FE, S1S2	Low
Monarch butterfly – Winter Pop (<i>Danaus plexippus</i>)	S2S3S1	Low
Fish		
Arroyo chub (<i>Gila orcuttii</i>)	FS, SSC, S2	Low
Amphibians		
Arroyo toad (<i>Anaxyrus californicus</i>)	FE, SSC, S3	Low
Western spadefoot (<i>Spea hammondi</i>)	BLM, SSC, S3	Low
Reptiles		
California Glossy Snake (<i>Arizona elegans occidentalis</i>)	SSC, S2	Low/Absent
orange-throated whiptail (<i>Aspidoscelis hyperythra</i>)	FS, WL, S2S3	Moderate
(Northern) reddiamond rattlesnake (<i>Crotalus ruber</i>)	FS, SSC, S3	Low
Coast (San Diego) horned lizard (<i>Phrynosoma blainvillii</i>)	BLM, SSC, S3S4	Moderate
Two-striped garter snake (<i>Thamnophis hammondi</i>)	BLM, FS, SSC, S3S4	High
Birds		
Cooper's hawk (<i>Accipiter cooperi</i>)	MBTA, WL, S4, FGC	Moderate
Tricolored blackbird (<i>Agelaius tricolor</i>)	BCC, BLM, MBTA, CAN, SSC, S1S2, FGC	Present
Burrowing owl (<i>Athene cunicularia</i>)	BCC, BLM, MBTA, SSC, S3, FGC	Nesting: Low
White-tailed kite (<i>Elanus leucurus</i>)	BLM, MBTA, FP, S3S4, FGC	Low
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	FE, MBTA, SE, S1, FGC	Low
Coastal California gnatcatcher (<i>Poliioptila californica</i>)	FT, MBTA, SSC, S2, FGC	Low
yellow warbler (<i>Setophaga petechia</i>)	BCC, MBTA, SSC, S2, FGC	High
least Bell's vireo (<i>Vireo bellii pusillus</i>)	FE, MBTA, SE, S2, FGC	High
Mammals		
pallid bat (<i>Antrozous pallidus</i>)	BLM, FS, SSC, S3, H	Moderate
Yuma myotis (<i>Myotis yumanensis</i>)	BLM, S, S4, LM	Low
Source: Wood 2019b		
Notes:		
FE: Federally Endangered	SE: State Endangered	
FT: Federally Threatened	FP: Fully Protected Species	
CAN: Candidate for Federal Listing	SSC: Species of Special Concern	
MBTA: Migratory Bird Treaty Act	WL: Watch List Species	
BCC: Birds of Conservation Concern	FGC: Bird species protected by Fish and Game Code	
BLM: Bureau of Land Management Sensitive	<u>CFDW State Rankings</u>	
FS: Forest Service Sensitive	S1: Critically Imperiled	
Western Bat Working Group (WBWG) designations:	S2: Imperiled	
H: High Risk	S3: Vulnerable	
M: Medium Risk	S4: Apparently Secure	
L: Low Risk		

Critical Habitat

As shown in Figure 5, designated critical habitat for thread-leaved brodiaea, coastal California gnatcatcher, San Diego fairy shrimp, and Riverside fairy shrimp are located within 2 miles of the Project site. Critical habitat for the federally listed arroyo toad is located within the Project site boundaries, in San Juan Creek (see Figure 5).

Jurisdictional Wetlands

An Ordinary High Water Mark Delineation Technical Report (i.e., Jurisdictional Delineation) was prepared in April 2018 to record potential wetlands and jurisdictional drainages within or near the proposed Project site (see Appendix C). Wetlands and jurisdictional drainages were mapped within the Project site through review of aerial photographs, topographic maps, the National Wetlands Inventory, soil mapping data, historical streamflow, and previous delineations of San Juan Creek using the USACE's wetland criteria parameters (i.e., the presence of hydrophytic vegetation, hydric soils, and wetland hydrology). The Project site includes one main ephemeral drainage, San Juan Creek, as well as several small drainage channels that are tributary to the creek. San Juan Creek supports jurisdictional wetlands and associated native riparian vegetation communities, which are sensitive resources protected under state and federal regulations. The USACE, in combination with the USEPA, when necessary, reserves the ultimate authority in making the final jurisdictional determination of waters of the U.S.

Potential Adverse Effects

Activities associated with construction of proposed Project components could potentially have adverse effects on sensitive biological resources. The greatest potential for impacts is from the proposed removal of the Arizona Crossing and streambank restoration, which include construction work within riparian vegetation associated with San Juan Creek. These areas of riparian vegetation could be used as nesting and/or foraging habitat by such special-status bird species as the least Bell's vireo or the yellow warbler and may therefore be under CDFW jurisdiction. Potential impacts could result from removal or trimming of vegetation or inadvertent disturbance due to operation or staging of construction equipment and vehicles. Removal or trimming of riparian vegetation during construction would represent a potentially significant impact that would require negotiation of a LSAA under Section 1602 of the California Fish and Game Code. However, compliance with the LSAA and all associated permit conditions – including potential avoidance and minimization measures and restoration requirements – Project-related impacts would be less than significant.

The federal Migratory Bird Treaty Act (MBTA) and Section 3503 of the California Fish and Game Code prohibit the knowing disruption of an active nest of virtually any native bird species. Project implementation could result in the disruption of one or more active nests of regulated bird species, particularly during vegetation removal or thinning. Construction activities associated with the proposed Project may also result in indirect impacts to nesting birds due to increased construction noise levels in the immediate Project vicinity.



- Project Components**
1. Arizona Crossing Removal
 2. Streambank Restoration
 3. CAFO Stormwater System Installation
- Proposed Storm Drain System
 - Approximate OHWM Boundary (based on April 2018 field assessment)
 - Culvert
 - Ephemeral Drainage
 - Proposed Arizona Crossing Removal
 - Proposed Bank Planting Area
 - Proposed Toe Planting Area with Riprap
 - Existing Creek Centerline
 - Proposed Construction Staging Area
 - Proposed Culvert Expansion
 - Proposed Earthen Berm
 - Proposed Pretreatment (Contech - Cds)
 - Proposed Underground Storage Vault
 - Project Location Buffer (2 miles)
- USFWS Critical Habitat**
- Arroyo (=arroyo southwestern) Toad
 - Coastal California Gnatcatcher
 - Riverside Fairy Shrimp
 - San Diego Fairy Shrimp
 - Thread-leaved Brodiaea

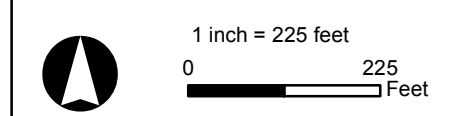


FIGURE 5
 USFWS Critical Habitat
 Initial Study / Mitigated
 Negative Declaration
 Rancho Mission Viejo Riding Park
 Orange County, CA



Black willow thicket is a riparian vegetation community that would be directly affected by Project construction activities within San Juan Creek and its eastern embankment. One CNPS List 2B.2 plant, white rabbit-tobacco, is considered to have a moderate potential to occur within the Project impact area. As such, construction activities associated with the proposed Project could potentially directly impact this special status plant species. Three special status wildlife species, including two amphibians (arroyo toad and western spadefoot) and one bird (least Bell's vireo), have the potential to occur within San Juan Creek and the black willow thicket along the creek. The proposed removal of the Arizona Crossing and streambank restoration may indirectly adversely and impact these three species through the removal of habitat and/or construction-related noise. Additionally, these activities may result in direct adverse impacts to the federally listed arroyo toad (e.g., injury or mortality) through the use of heavy construction equipment within the creek bed.

The majority of the proposed streambank restoration area is located outside of the critical habitat area for arroyo toad (see Figure 5). However, the proposed Project would result in direct impacts to small, unavoidable areas of arroyo toad critical habitat located at the north end of the Arizona Crossing and the streambank restoration area nearest to the Ortega Highway Bridge.

Mitigation Measures

The potential adverse impacts to biological resources identified above would be mitigated to a less than significant level through implementation of the measures described below. (Potential impacts to biological resources that may result from impacts to water quality and drainage are discussed in *Hydrology and Water Quality*).

Mitigation Measure BR-1: Prior to the initiation of any construction-related activities, contractor education training shall be provided by a qualified biologist to ensure that work crews know how to identify and avoid sensitive plant and wildlife species that could occur at the Project site. Additionally, a qualified biologist shall be present during all vegetation clearing and grading activities to monitor these construction activities and identify any sensitive plant and wildlife species that may occur within the Project site.

Mitigation Measure BR-2: A pre-construction survey for any sensitive plant and wildlife species potentially occurring in the Project area – including white rabbit-tobacco, arroyo toad, and least Bell's vireo – shall be conducted by a qualified biologist within 5 days prior to the initiation of any construction-related activities. Any sensitive species found in the work area during the pre-construction survey shall be left to leave on their own or shall be relocated by the biologist off-site to an area that provides suitable habitat conditions, which would be identified by the biologist and confirmed by the City, prior to construction. If sensitive plant or wildlife species are found during construction monitoring, the biologist shall clearly mark the location (with staking and flags) and/or install exclusionary fencing. All construction activities within up to 500 feet of the sensitive plant or wildlife species – as determined by the biologist – would be ceased until they leave on their own or are relocated by the biologist.

Mitigation Measure BR-3: To the maximum extent feasible, construction activities within 500 feet of San Juan Creek or its tributary within the Riding Park shall be conducted outside of the local nesting season for birds, which can be expected in the Project area from approximately February

1 through August 31. If construction activities are scheduled to occur during the nesting season, a qualified biologist shall conduct a nesting survey no more than 3 days prior to the start of construction. Consistent with CDFW recommendations, if any nesting birds or raptors are observed, the biologist shall clearly mark the location of the nest (with staking and flags), which should be avoided until the nestlings have fledged (i.e., left the nest), as determined by the biologist. Further, the biologist shall identify any additional measures necessary to avoid potential adverse impacts on nesting birds; these measures would be implemented by the construction contractor. Appropriate measures may include attenuating construction noise (through sound-dampening boards or other equipment) to a level of 60 A-weighted decibels (dBA) (as measured within 500 feet of the nest) or otherwise limiting disturbances within 500 feet of the nest until nesting is complete. If the level of 60 dBA cannot be achieved, the biologist shall be present during construction activities to ensure that nesting birds are not disturbed. The biologist shall halt any construction activity determined to be potentially disturbing for any nesting bird. Construction may continue when the monitor determines the activity can be carried out without disruption of nesting, or when the nestlings have fledged.

Mitigation Measure BR-4: All appropriate permits, including Section 404 NWP, Section 401 Water Quality Certification, Section 1602 LSAA, NPDES Construction General Permit, federal Incidental Take Permit(s), and California Endangered Species Act (CESA) Consistency Determination(s) or a state Incidental Take Permit(s) shall be obtained prior to the initiation of any construction-related activities. These permits may include avoidance and minimization measures and/or compensation for impacted jurisdiction wetland and upland habitats as well as critical habitat, as necessary.

- Prior to the commencement of any construction-related activities in jurisdictional waters, all appropriate federal and state permits shall be obtained, including Section 404 NWP, Section 401 Water Quality Certification, Section 1602 LSAA, and NPDES Construction General Permit, as applicable. Permit conditions may require avoidance and minimization measures as well as mitigation for impacts to jurisdictional wetlands, other regulated waters of the U.S. or state, and/or riparian habitat under the jurisdiction of CDFW at an appropriate mitigation ratio negotiated with the appropriate jurisdictional agencies (i.e., USACE, RWQCB, and CDFW, as necessary).
- To the extent required by the USFWS and CDFW under federal ESA and the CESA, designated critical habitat and other native riparian habitats (e.g., black willow thicket) shall be mitigated or otherwise compensated for (e.g., conservation banks) at an appropriate mitigation ratio. In the event that a federal or state ITP(s) are required for the proposed Project, the City shall conduct biological monitoring and reporting to the satisfaction of USFWS and CDFW consistent with the permit requirements.

The responses to the following questions are based on the potential impacts and mitigation measures identified above.

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 CDFW or the USFWS? Less Than***

Significant Impact with Mitigation. Implementation of the proposed Project would involve construction activities along San Juan Creek, its embankment, and a tributary to the creek that would have a limited potential to directly impact sensitive plant or wildlife species. As described in *Noise*, construction-related noise impacts would be expected during construction; however, these impacts would be short-term and temporary. Additional activities under the proposed Project involving substantial grading activities would include development of construction staging areas and improvements to San Juan Creek (i.e., Arizona Crossing removal and streambank restoration). As these activities would result in the direct removal of black willow thicket vegetation, they could potentially result in direct impacts to sensitive plant species or the removal of potential habitat for sensitive species, including federally endangered arroyo toad and federally and state endangered least Bell's vireo. The proposed Project would result in direct impacts to small, unavoidable areas of arroyo toad critical habitat located at the north end of the Arizona Crossing removal and the streambank restoration area nearest to the Ortega Highway Bridge. Additionally, these activities may result in direct adverse impacts to the federally listed arroyo toad (e.g., injury or mortality) through the use of heavy construction equipment within the creek bed. However, construction activities would be limited to the dry season to the maximum extent feasible, which would reduce the potential for impacts to riparian species, including the arroyo toad. **Mitigation Measures BR-1 through BR-3** would require pre-construction contractor education training as well as pre-construction surveys and biological monitoring. These measures – including exclusionary fencing for sensitive species identified before or during construction activities – would effectively reduce potentially adverse impacts to sensitive species, including arroyo toad and least Bell's vireo. Additionally, **Mitigation Measure BR-4** would require the City to obtain all appropriate permits and consultation prior to commencement of construction activities, including coordination with the USFWS and CDFW (refer to Table 1). Compliance with all required permit conditions would further reduce potential impacts to sensitive species. With the implementation of all required permit conditions (e.g., avoidance and minimization measures, restoration requirements, etc.) as well as the implementation of **Mitigation Measures BR-1 through BR-4**, impacts to this federally and state threatened species would be 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 CDFW or USFWS? Less Than Significant Impact with Mitigation.** During the 2018 survey, black willow thicket and other riparian vegetation, including critical habitat for the arroyo toad, was observed within the streambed of San Juan Creek in the Project site. Construction activities associated with the proposed Project may have the potential to indirectly affect sensitive habitats through noise or other kinds of disturbance. The pre-construction contractor education training shall be provided by a qualified biologist to ensure that work crews know how to identify and avoid sensitive riparian vegetation on the Project site to the maximum extent feasible. Coordination and consultation with all appropriate agencies, including the USFWS and CDFW, would ensure potentially adverse impacts to black willow thicket and other sensitive riparian vegetation, including critical habitat for the arroyo toad, are reduced to less than significant. Implementation of **Mitigation Measures BR-1 through BR-4** would effectively avoid significant indirect effects on riparian habitat and sensitive vegetation communities.
- c) **Have a substantial adverse effect on state or federally protected wetlands (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.** The proposed Arizona Crossing removal and streambank restoration would

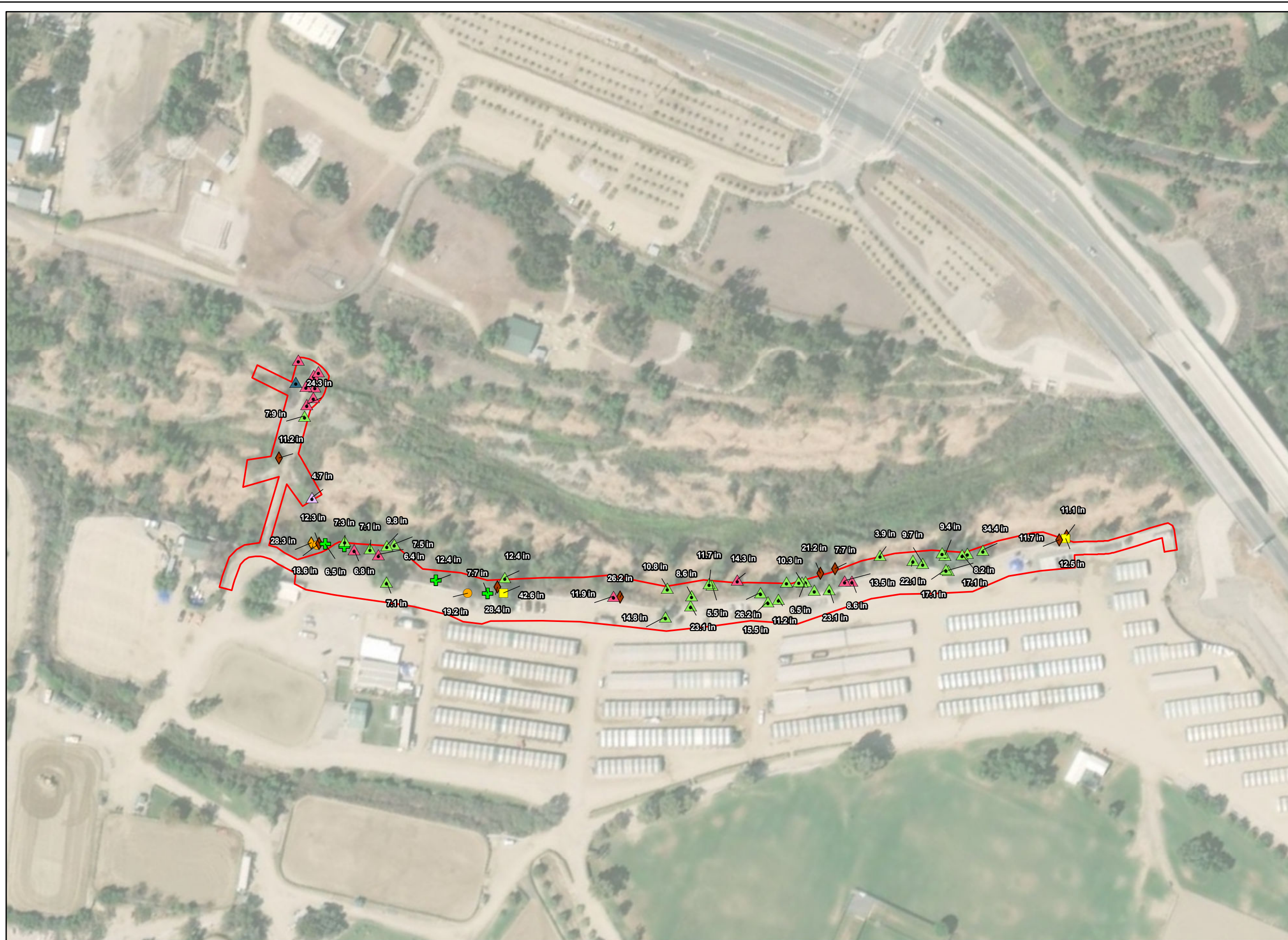
involve earthwork and other construction activities within San Juan Creek and its east embankment. As such, impacts to federal and state regulated waters would occur as a result of the proposed Project. However, per implementation of **Mitigation Measure BR-4**, the City would obtain a CWA Section 404 NWP, Section 401 Water Quality Certification, and Section 1602 LSAA prior to the commencement of any construction activities. Careful consultation and coordination with the applicable jurisdictional agencies as well as compliance with all required permit conditions (e.g., avoidance and minimization measures, restoration requirements, etc.) would ensure that the proposed Project would not result in any significant adverse effect on federally or state regulated waters.

- 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? Less Than Significant Impact.*** The black willow thicket area along San Juan Creek is likely a wildlife corridor for wildlife, such as amphibians and reptiles, moving from areas north of Ortega Highway to areas south of the Project site. The creek could also be used by aquatic species to move up or downstream during periods of high flow. Construction activities within San Juan Creek and its eastern embankment could result in temporary impacts related to the movement of fish and wildlife species that may use this corridor. However, construction activities associated with the proposed Project would occur during the dry season to the maximum extent feasible, thereby minimizing potential impacts to the movement wildlife species. Additionally, construction activities in the vicinity of the creek would be temporary and short-term. The crossing removal would additionally address the removal of a key physical barrier to southern Steelhead trout migration within San Juan Creek. Following construction, San Juan Creek would be revegetated with native plant species and restored to its pre-existing conditions. Removal of the Arizona Crossing would allow wildlife to more easily travel up and downstream of the crossing. New native vegetation would provide additional habitat for native wildlife species that use this corridor. Therefore, the proposed Project would ultimately result in beneficial long-term impacts to this wildlife corridor. Further, impacts to the movement of resident and migratory species can be mitigated to a level below significant through implementation of **Mitigation Measures BR-1 through BR-4**.
- e) ***Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance? Less Than Significant Impact.*** The City's Tree Preservation Ordinance (City of San Juan Capistrano Municipal Code 9-3.557) outlines standards and regulations for tree trimming in order to preserve and maintain existing trees within the City. Additionally, as previously described, City of San Juan Capistrano Municipal Code 9-2.349 requires a tree removal permit for removal of trees over 6 inches in diameter (measured 3 feet above grade) for new development projects, utility easements, common landscape areas, nonresidential projects, City facilities and City rights-of-way, and individual residential lots. Construction activities associated with the proposed Arizona Crossing removal and streambank restoration would require trimming and/or removal of 64 trees measuring greater than 6 inches, but less than 36 inches in diameter. Therefore, implementation of the proposed Project would require the City to prepare a Tree Removal Permit Application for Development Services Department and/or Planning Commission review. Construction activities would comply with all City standards and procedures for tree removal and thinning, pursuant to City of San Juan Capistrano Municipal Code 9-2.349. Additionally, as previously described, the proposed Project would include revegetation of San Juan Creek with native plant species. The impacted trees would be replaced at a 2:1 ratio with native oak, willow, and elderberry trees. The replacement trees would be comprised of 128 native trees contained in 5-gallon containers. An additional 928 native

plants contained in 1-gallon planter boxes would be used to revegetate the creek bank and adjacent areas. Therefore, the proposed Project would not result in impacts to protected biological resources that may conflict with local ordinances and impacts would be less than significant.

- 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 County of Orange (Central/Coastal) Natural Community Conservation Plan (NCCP) and Habitat Conservation Plan (HCP) is a comprehensive, multi-jurisdictional effort that includes central and coastal Orange County. The Project site and the City of San Juan Capistrano are not included in the NCCP/HCP. However, implementation of the proposed Project would restore San Juan Creek to its pre-existing conditions before construction of the Arizona Crossing and emergency streambank repairs. The proposed Project would remove concrete and other debris from the creek, stabilize the streambank, and revegetate with native vegetation. Additionally, the proposed CAFO stormwater treatment system would collect and treat polluted stormwater, to avoid draining polluted stormwater into San Juan Creek. As such, implementation of the proposed Project would result in long-term beneficial effects and therefore would be considered consistent with the overall wildlife and habitat conservation goals of the NCCP/HCP. Therefore, there would be no Project-related impacts to the County of Orange NCCP/HCP.

With implementation of mitigation measures, potential Project-related impacts on biological resources would be reduced to less than significant.



- Project Boundary

- Impacted trees (DBH in Inches)**
- + Quercus agrifolia
- ▲ Salix exigua
- ▲ Salix gooddingii
- ▲ Salix laevigata
- ▲ Salix lasiolepis
- ◆ Salix snag
- Sambucus nigra
- Schinus molle
- ◆ Schinus molle snag

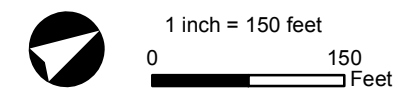


FIGURE 6

Impacted Trees
 Rancho Mission Viejo Riding Park
 Orange County, CA



Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

16.5 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of CEQA Guidelines?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of CEQA Guidelines?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A Cultural Resources Assessment was prepared by the City to address the potential for Project construction to impact significant historic, archaeological, or paleontological resources, using criteria established by Section 15064.5 of the CEQA Guidelines and/or under City standards as defined by City Council Policy 601 (Wood 2019c). To identify and evaluate the resources, Wood conducted a historical archaeological resources records search and historical background research at the Southern California Coastal Information Center (SCCIC) of the California Historical Resources Information System (CHRIS) at California State University, Fullerton. The Cultural Resources Assessment also included an intensive-level pedestrian field survey conducted by Wood Archaeologist Michael Amorelli on February 12, 2019, using 50-foot transects throughout the entire Area of Potential Effect (APE). The Project APE includes the Riding Park and spans both banks of the San Juan Creek immediately south of the Ortega Highway (see Appendix D).

The results of SCCIC archaeological records search indicate that 97 cultural resource studies have been undertaken within a 1-mile radius of the proposed APE; these studies have resulted in documentation of 42 cultural resources within the search radius. Three of these sites are located in or adjacent to the APE: a prehistoric campsite (CA-ORA-25) that overlaps the southeastern corner of the APE; a segment of Ortega Highway (30-176615) that borders the APE area to the north; and a cluster of three agricultural sheds (30-176626). These agricultural sheds were at one time within the northern bounds of the APE but have been demolished and removed since their recording. In addition to these resources, two additional archaeological resources (CA-ORA-26 and CA-ORA-27) are situated along the bluffs overlooking San Juan Creek immediately adjacent to the APE. Sites CA-ORA-25 and CA-ORA-26 are located in the southeastern corner of the APE on the eastern terrace and bluff of the creek, and site CA-ORA-27 is located on the western terrace and bluff overlooking the creek. Sites CA-ORA-26 and CA-ORA-27 are bisected by the Ortega Highway and have been extremely disturbed by the construction of and improvements to the highway in the 1930s and development of citrus orchards during the 1950s. All three sites are believed to have been prehistoric habitation sites and exhibited a large quantity of lithic material, both ground and flaked stone tools consisting of a variety of material; a chipped stone material quarry was noted at site CA-ORA-26. The distribution of recorded prehistoric sites in the immediate vicinity of San Juan Creek suggests

that the APE is within an area of high prehistoric resource sensitivity. No previously documented historic period resources were relocated, and no newly identified historic resources as defined by the National Historic Preservation Act (NHPA) or CEQA were documented within the APE during the February 2019 pedestrian survey.

The entire Project site, with the exception of the southern portion of the proposed streambank restoration area, has been disturbed by various improvements at the Riding Park, including original development of the Riding Park and unpaved roads; development and maintenance of equestrian competition riding rings, stalls and stables, equipment storage sheds; and construction of the culverts and associated vegetation clearing and maintenance. Additionally, San Juan Creek has been disturbed by the original construction of the Arizona Crossing and continual alluvial creek action. Areas of substantial subsurface disturbance that could be identified during the current intensive ground surface survey are not considered to have the potential for historic properties or previously undisturbed archaeological resources. Previous disturbances within other areas of the APE are not as substantial and do not appear to extend to the complete depth of proposed action excavations. In addition, these areas are located in a region that has a relatively higher potential for unknown prehistoric resources because of the proximity of the previously documented resources along the terraces and at the base of the foothills adjacent to and north of the APE, as indicated by SCCIC archaeological site data. As such, the Cultural Resources Assessment recommended that a qualified archaeologist monitor underground storage vault installation and ground-disturbing activities related to streambank restoration.

Mitigation Measures

Potential impacts to cultural resources can be mitigated to a level below significant through implementation of the mitigation measures presented below. (Potential impacts to tribal cultural resources that might result from the proposed Project are discussed in *Tribal Cultural Resources*).

Mitigation Measure CUL-1: Prior to the initiation of any construction-related activities, qualified archaeological and paleontological monitors shall be retained and shall provide a pre-construction contractor education training to construction workers. The presentation shall describe potential archaeological deposits and paleontological resources that could be encountered during ground-disturbing activities. The monitors shall be present during the first day of grading activities and shall make recommendations on subsequent monitoring based on observations during that initial phase.

Mitigation Measure CUL-2: If an archaeological deposit or resource is encountered during grading activities, all activity within up to 100 feet of the find – as determined by the archaeological monitor – shall cease until it can be evaluated by a qualified archaeologist, defined as one meeting the Secretary of the Interior's Professional Qualification Standards for Archaeology. If the find is determined to be potentially significant, the archaeologist, in consultation with the City and appropriate Native American group(s) (if the find is a prehistoric or Native American resource), shall develop a treatment plan. All work within up to 100 feet of the unanticipated discovery shall cease until the qualified archaeologist has evaluated the discovery, or the treatment plan has been implemented. If the archaeologist determines that

data recovery is necessary, the City shall prepare a Phase III recordation report and shall be responsible for curating the find in a facility meeting the standards described in 36 CFR Part 79.

Mitigation Measure CUL-3: If paleontological resources are encountered during the course of construction and monitoring, the City shall halt or divert work and notify a qualified paleontologist who shall document the discovery as needed, evaluate the potential resource, assess the significance of the find, and develop an appropriate treatment plan in consultation with the City.

Mitigation Measure CUL-4: Consistent with CEQA Guidelines Section 15064.5(e), if human remains are accidentally discovered or recognized during construction excavation and grading activities, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC would then identify the person(s) thought to be the Most Likely Descendent of the deceased Native American, who would then help determine what course of action should be taken in dealing with the remains. Per Public Resources Code 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section (Public Resources Code Section 5097.98), with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.

Would the project:

- a) ***Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the CEQA Guidelines? Less Than Significant Impact.*** The Cultural Resources Assessment did not identify any significant historical resources within the APE; however, according to the records search, three previously recorded sites are located within or adjacent to the APE. Construction activities associated with the proposed Project would not disturb any of the three previously recorded sites. Further, the proposed Project would not affect any buildings or structures, with the exception of the proposed Arizona Crossing removal. The Arizona Crossing does not meet the NRHP criteria for listing as a historical resource and is severely damaged. Overall, the proposed Project would not cause a substantial adverse change to any historical resources within the Project area or the vicinity of the Riding Park.
- b) ***Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines? Less Than Significant Impact with Mitigation.*** The records search conducted as a part of the Cultural Resources Assessment identified two archaeological resources situated along the bluffs overlooking San Juan Creek immediately adjacent to the APE, which were determined to have been extremely disturbed by the construction of and improvements to the Ortega Highway in the 1930s and development of citrus orchards during the 1950s. No previously undisturbed archaeological resources were observed in the APE during the pedestrian survey conducted as a part of the Cultural Resources Assessment. Additionally, a majority of the Project site was found to be substantially disturbed due to past construction and maintenance efforts

within San Juan Creek and the Riding Park. However, due to the proximity of the previously documented resources, the APE is located in a region that has a relatively higher potential for unknown prehistoric resources. Implementation of **Mitigation Measures CUL-1** and **CUL-2** would reduce potential impacts to unknown archaeological resources to less than significant with mitigation.

- c) ***Disturb any human remains, including those interred outside of dedicated cemeteries? Less Than Significant Impact with Mitigation.*** The NAHC was contacted on February 7, 2019 to determine if there were any known Native American resources within or immediately adjacent to the APE. The NAHC responded on February 17, 2019 that there are no known Native American resources within the APE. As such, it is highly unlikely that the proposed Project would disturb known human remains. The land use designations for the proposed Project components do not include cemetery uses, and no known human remains exist at the Project site. While highly unlikely, if Native American resources or human remains are discovered during construction activities, implementation of **Mitigation Measure CUL-4** would reduce potential impacts to less than significant levels.

With implementation of mitigation measures, potential Project-related impacts to cultural resources would be reduced to less than significant.

16.6 ENERGY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the project:

- a) **Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? No Impact.** Consumption of energy resources associated with the proposed Project would be limited to the minor amount of water required during construction activities (e.g., watering exposed soils), as well as truck trips related to sediment disposal and materials delivery and up to 50 construction worker vehicle trips per day over the 3-year construction period. There would also be a negligible amount truck trips associated with operation of the proposed Project (e.g., annual maintenance of the proposed CAFO stormwater treatment system). Therefore, the proposed Project would not result in a potentially significant impact due to consumption of energy resources during Project construction or operation.
- b) **Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? No Impact.** Based on the limited scale of the proposed Project, implementation would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, there would be no impacts.

The proposed Project would have no adverse impacts related to energy.

16.7 GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Directly or indirectly cause 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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the 1994 California Building Code 1997, creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The Project site is regionally located in Southern California, which is a seismically active region at the junction of the North American and Pacific tectonic plates. Southern California is likely to experience, on average, one earthquake of Magnitude 7.0, and 10 earthquakes of Magnitude 6.0 over a period of 10 years. There are several active and potentially active fault zones in the region that could affect the Project site. The faults within these zones include the Cristianitos, Newport-Inglewood, Whittier, San Andreas, San Jacinto, Malibu-Coast-Raymond, Palos Verdes, San Gabriel, and Sierra Madre-Santa Susana-Cucamonga faults.

Soils within the Project site are dominated by sandy loams, well drained clays, and riverwash-associated soil types. The Riverwash and Corralitos loamy sand are both on the California

hydric soils list (Natural Resources Conservation Service [NRCS] 2018). Soils within the San Juan Creek bed have been disturbed during construction of the concrete crossing and continual alluvial creek action. A Historic Fill Investigation conducted in April 2018 found that the existing fill present on the majority of the streambank restoration area appears to be poorly compacted and has experienced significant settlement and/or lateral slope movement, as well as significant slope face erosion (Wood 2018). Soils within the developed area of the Riding Park have been completely disturbed by previous construction activities as well as and continuous compaction from heavy equipment, vehicular, and equestrian use.

Would the project:

a) ***Directly or indirectly cause 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? Less than Significant Impact.*** The Project site is located within seismically active Southern California and therefore has the potential to be subjected to ground shaking hazards associated with earthquake events. In particular, the Project site is located approximately 1.25 mile west of the Cristianitos fault zone and 8.5 mile east of the Newport-Inglewood-Rose Canyon fault zone; however, the Project site is not located within a designated Alquist-Priolo Earthquake Fault Zone. Although the Project site is not located within a fault zone, it is located within a liquefaction zone as defined by the California Department of Conservation (California Department of Conservation, California Geologic Survey 2016).

The proposed Project would not exacerbate existing seismic conditions, is not anticipated to cause public safety concerns, and the likelihood of surface fault rupture and related hazard to the proposed Project is considered low. Construction would be confined to previously disturbed areas within San Juan Creek and the Riding Park. Following the completion of construction activities, excavated areas would be backfilled, compacted, and covered with material consistent with the existing and surrounding ground cover. No habitable structures are proposed and as such the proposed Project would have limited potential for damage from seismic activity. Conformance with standard engineering practices and design criteria would reduce potential impacts related to earthquake faults or seismic ground shaking to less than significant levels.



The proposed Project would remove poorly compacted soil to replace with native soils and install rip-rap and other streambank stabilization measures to maintain the creek's eastern embankment.

- ii) **Strong seismic ground shaking? Less than Significant Impact.** Refer to Response 16.7(a)(i) above.
- iii) **Seismic-related ground failure, including liquefaction? No Impact.** Liquefaction occurs when saturated, cohesionless soils temporarily lose shear strength (liquefy) due to increased pore water pressures induced by strong, cyclic ground motion during an earthquake. According to the California Department of Conservation's California Geological Survey, the Project site is within a State of California Hazard Zone for Liquefaction, owing to the depth of alluvium and loose fill soils and relatively high ground water that underlies the area (California Department of Conservation, California Geologic Survey 2016). However, no habitable structures are proposed, and the proposed Project would not change the existing use of the Project site as a recreational park. Additionally, impacts related to liquefaction and lateral spreading would be readily avoided through conformance with standard engineering practices and design criteria for the proposed Project components (e.g., California Building Code, etc.).
- iv) **Landslides? Less than Significant Impact.** The Project site is not located within a Landslide Zone as defined by the California Department of Conservation (California Department of Conservation, California Geologic Survey 2016). Further given that no habitable structures are proposed, the proposed Project site would have limited potential for damage from landslides. Therefore, impacts to the potential for landslides would be less than significant.
- b) **Result in substantial soil erosion or the loss of topsoil? Less than Significant Impact.** Implementation of the proposed Project would result in soil disturbance from excavation and grading activities during the construction phase. Ground disturbance in the streambank restoration area would include 8 to 10 feet of soil removal and re-compaction; installation of rip-rap in the toe area would disturb 3 feet of soil and planting along the streambank would result in disturbance of an additional 2 feet of soil. Installation of the storm drains is anticipated to disturb soil up to a depth of approximately 3 feet along the proposed storm drain lines. Ground disturbance resulting from installation of the proposed storage vaults would extend up to 8 feet deep. In total, implementation of the proposed Project components would result in up to 21,500 cy of earth work. All construction activities would be required to comply with standard engineering practices for erosion control (refer to discussion of SCAQMD requirements in *Air Quality*; see also *Hydrology and Water Quality*). Any minor potential for soil erosion impacts would be effectively avoided through implementation of these procedures. Following construction, the proposed Project would not increase the potential for soils to be subject to wind or water erosion. The proposed Project would result in beneficial impacts associated with removing the existing poorly compacted soils along the streambank and replacing with native soil. Overall, it is anticipated that impacts to substantial erosion or the loss of topsoil as a result of the proposed Project would be less than significant.
- 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? No Impact.** Potential impacts related to liquefaction, subsidence, and lateral spreading would be addressed through standard practices of the California Building Code. Further, the Project does not propose the construction of new habitable structures.

- d) ***Be located on expansive soil, as defined in Table 18-1-B of the 1994 California Building Code 1997, creating substantial risks to life or property? No Impact.*** Expansive soils are known to exist in the general vicinity of the Project site. However, no habitable structures would be developed as a part of the proposed Project. Compliance with California Building Code, including specifications to treat medium expansive soils such as those found on-site would sufficiently address any potential impacts.
- e) ***Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? No Impact.*** The proposed Project would not require the use of septic tanks or wastewater disposal systems. Therefore, no impacts to septic systems or alternative wastewater treatment systems would be installed as a result of the proposed Project.
- f) ***Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? Less Than Significant Impact with Mitigation.*** Refer to Response 16.5(b) above. Implementation of **Mitigation Measures CUL-1** and **CUL-3** would reduce potential impacts to unknown paleontological resources to less than significant with mitigation.

The proposed Project would have no significant impact on geology and soils.

16.8 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Greenhouse gases (GHGs) trap heat in the atmosphere and occur from natural processes as well as human activities. Human activities that produce GHGs are the burning of fossil fuels (e.g., coal, oil, and natural gas for heating and electricity, gasoline and diesel for transportation); methane (CH₄) from landfill wastes and raising livestock, deforestation activities; and some agricultural practices. Scientific evidence indicates a correlation between the worldwide proliferation of GHG emissions by mankind over the past century and increasing global temperatures (Intergovernmental Panel on Climate Change [IPCC] 2014). The principal GHGs that enter the atmosphere because of human activities are:

- **Carbon dioxide (CO₂)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), agriculture, irrigation, and deforestation, as well as the manufacturing of cement.
- **Methane (CH₄)** is emitted through the production and transportation of coal, natural gas, and oil, as well as from livestock. Other agricultural activities (e.g., ranching, dairy production, and fertilizer) influence CH₄ emissions as well as the decay of waste in landfills.
- **Nitrous oxide (N₂O)** is released most often during the burning of fuel at high temperatures. This GHG is caused mostly by motor vehicles, which also include non-road vehicles, such as those used for agriculture.
- **Fluorinated Gases** are emitted primarily from industrial sources, which often include hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF₆). Though they are often released in smaller quantities, they are referred to as High Global Warming Potential Gases because of their ability to cause global warming.

These gases have different potentials for trapping heat in the atmosphere, called global warming potential (GWP). For example, 1 pound of CH₄ has 21 times more heat capturing potential than 1 pound of CO₂. When dealing with an array of emissions, the gases are converted to carbon dioxide equivalents (CO₂e) for comparison purposes. The analysis for this IS uses the screening threshold recommended by the SCAQMD working group of 3,000 million tons of CO₂e per year (MT CO₂e/yr).

The greatest source of GHG emissions associated with development projects in California is vehicular emissions (CARB 2018b). The second greatest source is emissions from energy consumption (both natural gas and electrical) (CARB 2018b). As described under *Air Quality*, the proposed Project would generate vehicle trips related to sediment disposal, materials delivery, and worker commutes over the 3-year period of construction (refer to *Construction*). These construction equipment, heavy haul truck, and worker vehicle trips were included in CalEEMod to accurately estimate the worst-case emissions for the proposed Project (see Table 4).

The proposed Project would also result in a minor net increase in long-term emissions due to operation of the proposed CAFO stormwater treatment system – including routine annual maintenance. When the proposed Project's construction emissions are amortized (per SCAQMD Guidelines) they yield the projected emissions presented in Table 4. As indicated in the Table 4, the proposed Project's CO₂e emissions would be well below the SCAQMD's screening threshold of 3,000 MTCO₂e/yr.

Table 4. Greenhouse Gas Emissions

	MT CO ₂ e
Construction Emissions	7.92
<i>Total Emissions</i>	155.14
Screening Threshold:	3,000
Exceed Threshold?	No
Source: Wood 2019a	
Note: Construction emissions are amortized over 30 years in accordance with SCAQMD guidance (237.68 MTCO ₂ e/30). See CalEEMod Technical Report in Appendix A.	

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.*** According to the CalEEMod analysis conducted for the proposed Project, implementation of the Project would result in a total of 155.14 MT CO₂e of GHG emissions. Therefore, the Project's total GHG emissions would be well below the applicable screening threshold of 3,000 MTCO₂e.
- 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 proposed Project does not include any new uses or facilities that would generate a substantial increase in operational GHG emissions. The proposed Project would include treatment of collected stormwater within the proposed CAFO stormwater treatment system and discharge into the existing sanitary sewer system. GHG emissions from the proposed CAFO stormwater treatment system would be negligible and would not conflict with state, regional, or local strategies to reduce GHG emissions to 1990 levels.

The proposed Project would have no significant impacts related to GHG emissions.

16.9 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Government Code Section 65962.5 requires the California Environmental Protection Agency (Cal EPA) to develop and annually update the Hazardous Waste and Substances List – Site Cleanup (Cortese) List. Information on the location of hazardous material sites contained in the Cortese List is provided by the Department of Toxic Substances Control (DTSC). A review of the Cortese List indicates that there are no identified hazardous materials release sites located within the Project site or immediate vicinity (DTSC 2017). In addition, a review of the DTSC EnviroStor Database did not indicate any cleanup sites or hazardous waste facilities within the vicinity of the Project site (DTSC 2018).

The closest school is San Juan Hills High School, which is located approximately 0.75 miles south of the Riding Park. The nearest public airport, John Wayne Airport, is located in Santa Ana approximately 17.5 miles northwest of the Project site. The proposed Project is not located within an airport land use plan area. The Project site is not located within the vicinity of a private airstrip. Public access to the Riding Park is limited to Ortega Highway or Avenida La Pata. The California Department of Forestry and Fire Protection (CAL FIRE) designates the proposed Project within the Local Responsibility Area Very High Fire Hazard Severity Zone (CAL FIRE 2011).

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.** During construction activities, typical construction-related hazardous materials would be used at the Riding Park and within San Juan Creek, including hydraulic fluids and vehicle fuels for construction equipment. Additionally, materials delivery and other heavy construction equipment supporting the construction activities at the Riding Park would access the Project site either via Ortega Highway or Avenida La Pata, which pass adjacent to the Riding Park and near residents. The construction phase may include the transport and on-site storage of petroleum products for the purpose of fueling construction equipment. However, the use and transport of these materials during construction activities would be short-term in nature and would occur in accordance with standard construction BMPs included in the Storm Water Pollution Prevention Plan (SWPPP) required in accordance with the NPDES Construction General Permit to control the discharge of material from the site (see *Hydrology and Water Quality*). All transport, handling, use, and disposal of substances such as petroleum products related to Project construction would comply with applicable federal, state, and local health and safety regulations. Long-term Project activities (e.g., stormwater pumping and transportation) would not create a substantial hazard to the public or environment through the routine transport, use, or disposal of hazardous materials. Therefore, impacts associated with the proposed Project would be less than significant.
- 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.** The proposed Project may result in a potential risk of upset or accidental release of hydraulic fluid or vehicle fuel resulting from construction activities within the Project site or along construction haul routes. However, all transport, handling, use, and disposal of substances such as petroleum products related to Project construction activities would comply with all federal, state, and local laws regulating the management and use of hazardous materials. Additionally, implementation of **Mitigation Measure BR-6** would require the City to obtain all required permits, including CWA Section 404 NWP, Section 401 Water Quality Certification, and Section 1602 LSAA prior to commencement of any Project construction activities. These permits would include standard construction BMPs (e.g., off-site fueling and maintenance of construction equipment), which would be in place for the duration of Project construction to ensure the proper use and storage of potentially hazardous materials. Additionally, the City would be required to develop and implement a SWPPP per the requirements of the NPDES Construction General Permit to ensure that reasonably foreseeable risks of upset involving the release of hazardous materials into the environment are avoided and minimized. With implementation of **Mitigation Measure BR-6**, there would be minimal potential for the release of hazardous materials into the environment during long-term Project operations. Therefore, Project-related impacts are anticipated to be less than significant with mitigation
- c) **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? No Impact.** The nearest school is San Juan Hills High School, located approximately 0.75 miles south of the Project site. Further, the proposed Project would not result in adverse impacts to hazardous emissions, materials, substances, or waste. Refer to Responses 16.9(a) and 16.9(b) above.

- 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.*** The Project site is not included on the DTSC's Cortese List, EnviroStor database or any other list of sites containing hazardous materials (DTSC 2018). Therefore, the proposed Project would not disturb any sites that would create a significant hazard to the public or to the environment.
- e) ***For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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? No Impact.*** The Project site is not located within an airport land use plan or within 2 miles of a public airport and would not result in a safety hazard for people residing or working in the Project vicinity.
- f) ***Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan? No Impact.*** Construction and operation of the proposed Project have no potential to affect an adopted emergency response plan or emergency evacuation plan. The Project would not result in a significant increase in traffic congestion that might impede mobility during an emergency (see *Transportation and Traffic and Wildfire*). Nor would it result in physical obstruction of any street or highway that is critical to evacuation in the event of an emergency.
- g) ***Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? No Impact.*** While a portion of the Project site is located within a Very High Fire Hazard Zone, construction and operation of the proposed stormwater facilities would not result in exposure of people or structures to risk of loss, injury or death involving wildland fires, because the Project does not propose new habitable structures. See *Wildfire* for further discussion of wildfire potential at the Project site.

With implementation of the **Mitigation Measure BR-6**, the proposed Project would not result in significant impacts related to hazards and/or hazardous materials.

16.10 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iii) 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; or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Be subject to inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Project site is located within the watershed of San Juan Creek. As previously described, the creek is located immediately to the north and west of the Riding Park. San Juan Creek is within SWRCB Region 9 – San Diego. The creek is currently listed under the CWA Section 303(d) List of Water Quality Limited Segments as impaired for pollutants including, but not limited to,

indicator bacteria, phosphorus, total nitrogen, dissolved oxygen, selenium, and DDE (SWRCB 2018). Other pollutants of concern include:

- Heavy Metals
- Nutrients (Ammonia, Nitrate, and Total Phosphorus)
- Pesticides
- Toxic Organic Compounds
- Suspended Solid Sediments
- Trash and Debris
- Oil and Grease
- Bacteria/Virus Pathogens

The Orange County Local Water Quality Management Plan (WQMP) also identifies organic compounds and oxygen-demanding compounds as pollutants of concern. Typical organic compounds in urban runoff are pesticides, petroleum hydrocarbons, and vegetative debris. Oxygen-demanding substances are often conveyed in urban trash and debris, such as biodegradable food and vegetation waste, which contribute to ammonia and nutrient levels.

Stormwater runoff at the Riding Park is currently captured via a system of drainage channels and subsurface drains across the site and conveyed to detention basins, before discharging into San Juan Creek. The site consists pre-dominantly of pervious surfaces – bare ground and groomed surfaces and turf in the equestrian arenas.

Would the project:

- a) ***Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? Less Than Significant Impact.*** There is a potential for erosion and sedimentation impacts during construction associated with each of the proposed Project components. Potentially significant effects would be reduced to less than significant levels through implementation of standard construction erosion control BMPs adopted by the City, which are routinely enforced for projects with grading and/or soil disturbance, including **BMP AQ-1** as well as the following:

BMP HYD-1: A standby crew for emergency work shall be available at all times, if construction becomes necessary during the rainy season. All required materials shall be available on-site and stockpiled at convenient locations to facilitate rapid installation of temporary devices or to repair any damaged erosion control measures when rain is imminent.

BMP HYD-2: All removable protective devices shown on Project plans shall be in place at the end of each working day when the 5-day rain probability forecast exceeds 40 percent. Forecasts shall be received from broadcasts provided by the U.S. Weather Service.

BMP HYD-3: If deemed necessary by City Inspector, provide two row high gravel bags or straw bales on the slope downside adjacent to the proposed bank restoration.

As described in *Hazards and hazardous Materials*, construction activities could potentially result in accidental release of hydraulic fluid or vehicle fuel within the Project site, which could discharge into San Juan Creek or its tributary on-site. However, implementation of **Mitigation Measure BR-6** would require the City to obtain all required permits, including

CWA Section 404 NWP, Section 401 Water Quality Certification, and Section 1602 LSAA prior to commencement of Project construction activities. These permits would include standard construction BMPs (e.g., off-site fueling and maintenance of construction equipment), which would be in place for the duration of Project construction to avoid potential impacts to surface or ground water quality. Additionally, the required NPDES Construction General Permit would require development and implementation of a SWPPP to prevent adverse impacts to surface or ground water quality due to potential pollutant discharge during construction activities. Therefore, there would be less than significant impacts related to water quality.

- b) ***Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? No Impact.*** The proposed Project would not result in increased demand for water and does not propose additional impervious ground cover. Short-term water demand for construction-related activities (e.g., watering exposed soils) would be similar to standard construction projects. Given the limited scope of the Project, this demand would be minor and would have a negligible effect on local groundwater supplies. Therefore, the proposed Project would have no adverse effect on groundwater supplies, groundwater recharge, or aquifers.
- c) ***Substantially alter the existing drainage pattern of the site or area including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:***
- i) ***Result in substantial erosion or siltation on- or off-site? Less Than Significant Impact.*** Refer to Response 16.7(b). The proposed Project would not result in siltation on- or off-site.
 - ii) ***Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site? No Impact.*** The proposed Project does not include the addition of impervious surfaces and would not result in increased rate or amount of surface runoff. In fact, the proposed CAFO stormwater treatment system would address seasonal flooding at the Riding Park by capturing runoff from across the western (i.e., downstream) portion of the Riding Park and conveying flows to the proposed underground cisterns. Therefore, implementation of the proposed Project would result in beneficial impacts related to flooding during heavy storms at the Riding Park.
 - iii) ***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? No Impact.*** Refer to Response 16.10(c)(ii) above. The proposed Project does not include a change of use at the Riding Park and would not result in increased use of this facility. Further, the proposed CAFO stormwater treatment system, including the earthen berm and storm drains, would capture stormwater runoff from Riding Park conveying it into the proposed underground cisterns, rather than receiving waters of San Juan Creek. Therefore, implementation of the proposed Project would result in beneficial impacts related to stormwater runoff and water quality.
 - iv) ***Impede or redirect flood flows? Less Than Significant Impact.*** Construction activities associated with the Arizona Crossing removal and streambank restoration/ would require the use of heavy construction equipment within San Juan Creek and its

eastern embankment. However, construction activities within the drainages would occur in the dry season and avoid impacts to flood flows. As previously described, existing runoff from the Riding Park flows downstream into San Juan Creek. The proposed earthen berm would redirect flood flows towards the storm drains and underground cisterns. However, this redirection of flood flows would prevent stormwater runoff from the Riding Park from directly reaching the receiving waters of San Juan Creek and therefore, would provide benefits to water quality of the creek. Therefore, implementation of the proposed Project would result in less than significant impacts.

- d) ***In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? No Impact.*** No topographical features or water bodies capable of producing seiche, tsunami or mudflow events are present within the Project vicinity. The Project site is located more than 5 miles from the Pacific Ocean, the nearest waterbody capable of producing these hazards. The Project would not increase the risk associated with seiche, tsunami, or mudflow beyond those of the existing conditions. Therefore, no impacts would occur.
- e) ***Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? No Impact.*** The proposed Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Implementation of the proposed Project would result in beneficial impacts to water quality (refer to Response 16.10[a] above). Additionally, the proposed Project does not include the addition of impervious surfaces or increased demand for water supply at the Project site (refer to Response 16.10[b] above) and therefore, would not impact or otherwise affect compliance with a sustainable groundwater management plan.
- f) ***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 western half of the Project site, including the Arizona Crossing, streambank restoration area, and a portion of the proposed storm drain area, is located within the 100-year flood zone as mapped by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) (FEMA 2009). However, no habitable structures are included as a part of the proposed Project. Therefore, the proposed Project would not result in impacts related to placing housing within a 100-year flood hazard area.
- g) ***Place within a 100-year flood hazard area structures which would impede or redirect flood flows? No Impact.*** Refer to Response 16.10(f), above.
- h) ***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? No Impact.*** According to FEMA maps, the Project site is within 100-year flood hazard areas. However, implementation of the proposed Project would reduce existing flooding impacts at the Project site by removing the damaged Arizona Crossing from San Juan Creek, reinforcing the streambank and constructing a new stormwater capture and treatment system at the Riding Park.
- i) ***Be subject to inundation by seiche, tsunami, or mudflow? No Impact.*** The proposed Project would result in no impacts related to inundation by seiche, tsunami, or mudflow. Refer to Response 16.10(d), above.

The proposed Project would have no significant impacts on hydrology and water quality.

16.11 LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Land uses within the Project site include recreation and open space. In the vicinity of the proposed Project, land uses include single-family residential to the south and west (refer to Figure 2), agriculture to the west, and recreation and open space within and adjacent to the east of the Riding Park. Additional single-family residences are located to the north of the Project site, with a few commercial uses (i.e., Sendero Marketplace, Starbucks, etc.). Existing uses and proposed facilities are consistent with current zoning and General Plan designations for the Project site.

Would the project:

- a) **Physically divide an established community? No Impact.** The proposed Project would involve temporary construction activities between July 2020 and July 2023. No long-term separation of land uses between land use types would occur as a result of the proposed Project. Temporary disruption of access during construction would not disrupt recreational activities at the Riding Park. Therefore, implementation of the proposed Project would not divide an established community and no impact would occur.
- b) **Cause a significant environmental impact due to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? No Impact.** The proposed Project activities, including removal of the existing Arizona Crossing, streambank restoration, and development of a stormwater capture and treatment system, would not conflict with the City's General Plan policies or any zoning designation for the Project site. Further, as previously described, the proposed Project site is not included in the Orange County Southern Sub-Region HCP. Therefore, there would be no potential conflicts with a land use plan and no Project-related impacts.

The proposed Project would have no adverse impacts related on land use and planning.

16.12 MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Mineral Land Classification of the Greater Los Angeles Area prepared by the California Department of Conservation Division of Mines and Geology delineates the San Juan Creek (among other waterbodies in the region) as a known mineral site for sand and gravel deposits (California Division of Mines and Geology 1981). However, the Riding Park currently operates in conjunction with the presence of the remnant sand and gravel and has done so for nearly 40 years. Implementation of the proposed Project would not develop within the delineated mineral deposits, and the proposed Project does not include any mineral harvesting activities. Therefore, implementation of the Project would not result in the loss of mineral resources and the proposed Project would not result in adverse impacts to mineral resources.

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.*** There are no mineral recovery sites on or near the Project site. As described above, the proposed Project does not include development within the sand and gravel deposits at San Juan Creek or any mineral harvesting activities. Therefore, the proposed Project would not result in the loss of availability of a known mineral resource.
- 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.*** The proposed Project would not result in the loss of availability of a mineral resource recovery site. Refer to Response 16.12(a), above.

The proposed Project would have no adverse impact on mineral resources.

16.13 NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Construction Noise

As described in *Construction Timing*, consistent with requirements codified in the City's Noise Ordinance (City of San Juan Capistrano Municipal Code 8-2.04), the City would perform all construction activities Monday through Friday from the hours of 7:00 am to 6:00 pm. Construction would only occur on Saturdays, between 8:30 am and 4:30 pm, if necessary, to avoid the wet season. Consistent with the City's Noise Ordinance, construction activities would not occur on Sundays and federal holidays. Additionally, all construction-related vehicle trips would be limited to the hours between 7:00 am and 4:30 pm to avoid traffic conflicts during the PM peak hour (see *Transportation and Traffic*). Construction-related noise and groundborne vibration would be generated by excavation activities, including operation of a backhoe, crane, compactor, and heavy haul trucks. Additional sources of noise may occur from general truck movement, and the operation of chainsaws, excavators, and power tools. Construction noise levels were evaluated using data published by the U.S. Department of Transportation (DOT), as indicated in Table 5.

Table 5. Noise Ranges of Typical Construction Equipment

Construction Equipment	Noise Levels in dBA L_{eq} at 50 Feet
Trucks	82–95
Jackhammers	81–98
Compressors	75–87
Concrete Mixers	75–88
Concrete Pumps	81–85
Back Hoe	73–95
Source: U.S. DOT Construction Noise Handbook 2006. Note: Machinery equipped with noise control devices or other noise-reducing design features does not generate the same level of noise emissions as that shown in this table.	

Project construction would be accomplished with the use of a grader, tractor, backhoe, loader, trucks to deliver materials, and other construction equipment (refer to *Construction*). The noise generated by these pieces of equipment, would result in a temporary increase in ambient noise levels consistent with the general noise levels presented in Table 5. However, this increase would be short-term and intermittent. Additionally, construction activities associated with the proposed Project would be consistent with the construction timing requirements identified City's Noise Ordinance (City of San Juan Capistrano Municipal Code 8-2.04). The City's Noise Ordinance does not identify maximum noise levels for construction; however, construction-related increases noise levels would not adversely affect residents or any other noise-sensitive land uses, located more than 120 feet from the Project site, with intervening vegetation and roadways that would dampen and/or attenuate construction-related noise.



Removal of the Arizona crossing would require excavation of approximately 700 cy of concrete, riprap, and rubble, resulting in temporary construction noise within a recreational land use area.

Operational Noise

The City's Exterior Noise Standards for Residential and Public Institutional Districts outlined in City of San Juan Capistrano Municipal Code 9-3.531 (see Table 6) are the base of measurement for determining noise violations affecting uses within the residential and public and institutional districts.

Table 6. Exterior Noise Standards for Residential and Public Institutional Districts

Noise Level	Time Period
65 dBA	7:00 a.m. to 7:00 p.m.
55 dBA	7:00 p.m. to 10:00 p.m.
45 dBA	10:00 p.m. to 7:00 a.m.
Source: City of San Juan Capistrano Municipal Code 9-3.531. Note: These standards do not apply to construction activities.	

During operation, the proposed CAFO stormwater treatment system and truck trips associated with annual maintenance may generate negligible noise at the Riding Park. However, the proposed Project would not generate noise levels that would exceed, or even approach, the exterior noise standards established in Table 6. As such, the projected increase in noise levels would not be great enough to adversely affect residents or any other noise-sensitive land uses off-site.

Would the project:

- a) **Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? Less Than Significant Impact.** Neither the construction nor the long-term operational activities associated with the proposed improvements would generate significant noise at or in the vicinity of the Riding Park. As such, the proposed Project would not result in a temporary or permanent increase in ambient noise levels in excess of any established standards.
- b) **Generation of excessive groundborne vibration or groundborne noise levels? Less Than Significant Impact.** No permanent increase in groundborne vibration or groundborne noise levels would result from the implementation of the proposed Project. The proposed Project would involve intermittent use of heavy equipment for short-term construction activities, which has potential to cause a temporary increase in groundborne vibration. However, no blasting or pile driving would be required and vibrational noise from construction equipment would be minimal. There are no operational or maintenance activities that would include vibration and the short duration of Project construction activities would not generate a significant amount of groundborne vibration. Therefore, the proposed Project would have a less than significant impact.
- c) **For a project located within a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 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 Project site is not within an airport land use plan or within 2 miles of a public airport or public use airport.

Construction and operation of the proposed Project would not result in significant noise impacts.

16.14 POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Induce substantial unplanned 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the project:

- a) **Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)? No Impact.** The proposed Project would not establish new housing or extend any roads or urban services. Construction employment opportunities provided by the proposed Project would not result in long-term relocation by workers due the temporary nature of the proposed construction activities. The proposed Project would neither affect population or housing located within the Project vicinity, nor in the greater vicinity of San Juan Capistrano. Therefore, there would be no population growth impacts as a result of the proposed Project.
- b) **Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? No Impact.** Construction of the proposed facilities would not displace any housing.

The proposed Project would have no adverse impacts on population and housing.

16.15 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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:				
(i) Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(ii) Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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:**

- i) **Fire protection? No Impact.** The Orange County Fire Authority (OCFA) provides fire protection and emergency medical (paramedic) services within the City. OCFA Station 56, located at 56 Sendero Way in Rancho Mission Viejo, is the closest station to the Project site. During construction, emergency access to the Project vicinity would be maintained along roadways and any lane closures would be temporary (see Response 16.20[a]). Additionally, construction of the Project would be subject to City requirements associated with water availability and accessibility to fire suppression materials. Following the completion of construction-related activities, the Project would not result in a change in land use or activities. Nor would the proposed Project induce growth or substantially increase, either directly or indirectly, the need for fire protection services over existing conditions. Therefore, there would be no impact related to fire protection services.
- ii) **Police protection? No Impact.** Construction of the proposed Project is not anticipated to result in temporary interruption or delays for law enforcement response times. Trip generation and lane closures during construction would be short-term and temporary. The proposed Project would not increase demand for law enforcement and no new facilities (i.e., police stations) would be required. Therefore, implementation of the proposed Project would have no impact on police protection.
- iii) **Schools? No Impact.** No new residential units would be constructed as a part of the proposed Project, and the proposed Project would not result in new permanent

populations that would require school facilities. As such, the Project would not increase demand on local schools. No impact would occur.

- iv) ***Parks? No Impact.*** The proposed Project does not include development of any residential uses and would not generate any new permanent residents that would increase the demand on local parks. Implementation of the proposed CAFO stormwater treatment system would address existing seasonal flooding impacts that disturb recreational activities at the fields within the Riding Park. Therefore, with implementation of the proposed improvements, recreational activities scheduled at the Riding Park would be able to continue during and immediately following heavy rainfall. Implementation of the proposed Project would provide beneficial impacts related the use of the Riding Park.
- v) ***Other public facilities? No Impact.*** The proposed Project does not include development of residential uses and would not generate any new permanent residents that would increase demand on other public services or facilities. As such, no impact to other public facilities would occur from implementation of the proposed Project.

The proposed Project would have no adverse impact on public services.

16.16 RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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? No Impact.**

The proposed Project includes short-term construction that would not increase demand on existing or planned recreational facilities, including the Riding Park. The proposed stormwater improvements would address seasonal flooding issues and allow for the continued operation of the Riding Park during and immediately following heavy rainfall. However, this continued use of the Riding Park would not have an effect on the existing demand of the Riding Park. BFM would continue to operate and schedule events and tournaments at the Riding Park, such that the facility would not experience substantial physical deterioration. Therefore, the proposed Project would not result in an increased demand on existing parks and recreational facilities such that substantial physical deterioration would occur.



The proposed drainage improvements and restoration activities are anticipated to capture stormwater runoff and control address seasonal flooding issues within the Riding Park.

It should also be noted that removal of the existing Arizona Crossing would eliminate the formal pedestrian entrance from Reata Park. Nevertheless, hikers and pedestrians would still be able to pass through the creek bed during periods of low flow, similar to existing conditions.

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? No Impact.** The proposed Project would not develop or require the construction of recreational facilities that would physically affect the environment. Therefore, no impact would occur.

Construction and operation of the proposed Project would not result in adverse impacts to recreation.

16.17 TRANSPORTATION AND TRAFFIC

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Conflict with program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.33 or will 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

An existing condition of approval and the City's purchase agreement for the Riding Park impose a limit on vehicle trips to and from the Riding Park. Under that limit, the number of vehicle trips generated from uses within the Riding Park during the weekday PM peak hour (i.e., 4:45 pm to 5:45 pm) cannot exceed 203 trips, in combination with the PM peak trips concurrently generated from Reata Park. The limit of 203 trips is designed to avoid significant impacts to local and regional roadways, including levels of service (LOS) of local intersections and on- and off-ramps of the I-5 freeway at Ortega Highway (Riding Park Purchase and Sale Agreement, Section 15.1). During the school year, Avenida La Pata is used as the main access road for San Juan Hills High School; therefore, this road may experience limited congestion during pick-up and drop-off times. However, compliance with the 203 PM peak limit would effectively ensure that the proposed Project would not exceed the thresholds for significant impacts for roadways, intersections and on- and off-ramps.

Implementation of the proposed Project would result in a temporary, short-term increase in vehicle trips during the construction phase. As described under *Air Quality* construction associated with the proposed Project would result in vehicle trips related to sediment disposal and materials delivery over the 3-year period of construction (i.e., up to 22 truck trips per day). Additionally, up to 50 construction worker vehicle trips would be required per day over the 3-year construction period (refer to *Construction*).

³ CEQA Guidelines Section 15064.3(c) provides that a lead agency "may elect to be governed by the provisions" of the section immediately; otherwise, the section's provisions apply July 1, 2020. Here, the District has not elected to be governed by Section 15064.3. Accordingly, an analysis of vehicles miles traveled (VMT) is not necessary to determine whether a project will have a significant transportation impact.

As described under *Construction Timing*, the City is limiting trips associated with the proposed Project to the hours between 7:00 am and 4:30 pm to avoid congestion and vehicular conflicts during the PM peak hour. Therefore, the vehicular trips generated during the construction phase would not affect the weekday PM peak cap of 203 trips imposed on the Riding Park site and the neighboring Reata Park. The mechanism for ensuring compliance with the PM peak cap is a monitoring and management plan implemented by the City of San Juan Capistrano Recreation Department which monitors scheduled events at both sites and ensures that the 203 PM peak limit would not be exceeded.⁴ Compliance with the limit on vehicular trips through City implementation of the monitoring and management plan would ensure avoidance of any significant impacts to roadway capacities from the Riding Park site, or from the two sites combined; or of a substantial contribution to a cumulatively significant impact arising from the very small number of construction worker trips associated with the proposed Project.

Operation of the proposed Project would result in a negligible number of trips associated with annual maintenance of the proposed CAFO stormwater treatment system. However, these trips would replace (and likely reduce) the number of trips associated with emergency maintenance and repairs to the Riding Park and San Juan Creek streambank during and following rainfall events.

Would the project:

- a) ***Conflict with program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? No Impact.*** The proposed Project is located entirely within the San Juan Creek and the Riding Park. Construction and operation of the proposed Project would not conflict with adopted policies, plans, and programs supporting alternative transportation because there are no such policies, plans or programs applicable to the San Juan Creek and Riding Park. Temporary, construction-related trips would be minor and would avoid the PM peak hour. Additionally, the proposed Project would generate a negligible increase in new operational vehicular trips associated with annual maintenance of the proposed CAFO stormwater treatment system at the Riding Park. Therefore, implementation of the proposed Project would not contribute to exceedance of the permitted 203 trips peak PM limit for the Riding Park, and the proposed Project would result in no impacts to any program, ordinance, or policy addressing the circulation system.
- b) ***Conflict or be inconsistent with CEQA Guidelines Section 15064.3 or will 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? No Impact.*** Although Section 15064.3 creates a new threshold for analyzing impacts using vehicles miles traveled (VMT) as a metric for measuring additional traffic congestion, lead agencies are not required to utilize VMT until July 1, 2020. Construction-related activities would result in limited trip generation (e.g., up to 22 truck trips per day and 50 worker vehicle trips per day) that would not measurably contribute to intersection delays in the vicinity of the Project site, particularly given that these trips would not occur during the PM peak hour. Peak-hour LOS at each of the surrounding intersections and along each of the

⁴ See Reata Park and Event Center Master Plan IS/MND, October 2012, Mitigation Measure T-1.

surrounding roadway segments would remain unchanged from existing conditions during construction. Refer also to Response 16.17(a), and discussion above.

- c) ***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 would not change the design of existing traffic-related infrastructure or change existing traffic patterns. The proposed Project would not introduce any incompatible uses that might introduce a safety hazard to circulation.
- d) ***Result in inadequate emergency access? No Impact.*** The proposed Project would not include any change to public roadway designs and would not introduce incompatible uses or line-of-sight issues. The proposed Project would not result in traffic delays that could substantially increase emergency response times or reduce emergency vehicle access. Construction vehicles would not park on roadways and, thus, during construction, the Project would not create a hazard, interrupt vehicle line-of-sight, or block emergency access. The proposed Project does not include any changes to a road that has hazardous design features such as sharp curves or dangerous intersections and would not result in inadequate emergency access. Therefore, the proposed Project would have no impact.

The proposed Project would have no adverse impacts on transportation and traffic.

16.18 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Assembly Bill (AB) 52, which went into effect on July 1, 2015, established a consultation process with all California Native American tribes on the NAHC List and required consideration of Tribal Cultural Values in the determination of Project impacts and mitigation. AB 52 established a new class of resources, tribal cultural resources, defined as a site feature, place, cultural landscape, sacred place or object, which is of cultural value to a Tribe that is either: 1) on or eligible for the California Historic Register or a local historic register; or 2) treated by the lead agency, at its discretion, as a traditional cultural resource per Public Resources Code 21074 (a)(1)(A)-(B).

As described in *Cultural Resources*, Wood sent a letter to the NAHC on February 7, 2019 requesting a search of their Sacred Lands Files and their recommendation on potential Native American concerns as a part of the Cultural Resources Assessment. In response, the NAHC indicated that no sacred sites have been identified within the APE. The NAHC provided a list of 17 tribal representatives who may have knowledge of cultural resources in the general Project area. Notification letters were sent on February 11, 2019, to the 17 tribal representatives to inform them of the proposed Project and to inquire about whether they have information regarding cultural resources within the Project area. Follow-up phone calls or e-mails were made on March 1 and March 8, 2019 (Wood 2019c).

The Pala Band of Mission Indians and the Rincon Band of Luiseno Indians stated that the Project is outside of their territory and they defer to tribes in closer proximity to the APE. Joyce Perry of the Juaneño Band of Mission Indians Acjachemen Nation–Belardes stated in a phone call that the APE is within an area that is sensitive to Native American sites, and therefore recommended Tribal and archaeological monitoring during all ground-disturbing activities

associated with the proposed Project. If cultural resources are encountered during the undertaking, she has requested that all work cease until the nature of the find can be assessed and appropriately addressed. No additional comments were received from Native American tribes (Wood 2019c).

AB 52 requires lead agencies to consult with California Native American tribes that request such consultation in writing prior to the agency's release of a Notice of Preparation (NOP) of an EIR; or notice of an MND, or Negative Declaration (ND). The City delivered invitations for government-to-government consultation on August 14, 2019; however, no responses or requests were consultation were received from the tribes.

Mitigation Measures

Potential impacts to tribal cultural resources can be mitigated to less than significant through implementation of the mitigation measure presented below.

Mitigation Measure TC-1: At the request of the Juaneño Band of Mission Indians Acjachemen Nation–Belardes, the City shall invite the Juaneño Band of Mission Indians Acjachemen Nation–Belardes to provide tribal monitoring services including observation of initial soil disturbance activities (e.g., up to the first 3 feet of grading). A qualified archaeologist and Native American monitor would attend a pre-construction meeting and would be present during initial ground-disturbing activities. The frequency of inspections would be determined by the archaeologist in consultation with the Native American representative(s) and would vary based on the rate of excavation, the materials excavated, and the potential presence and abundance of artifacts and features. If previously undiscovered tribal cultural resources are discovered during construction, the City staff shall ensure that all work in the vicinity of the find is redirected until proper recovery and recordation has occurred. Further, the City shall obtain future monitoring by a qualified archaeologist and/or Native American monitor(s), as necessary.

Would the project:

- a) ***Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:***
 - i) ***Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? Less Than Significant Impact with Mitigation.*** The records search included in the Cultural Resources Assessment identified two historic sites (i.e., a segment of the Ortega Highway that borders the APE area to the north and a cluster of three agricultural sheds which were at one time within the northern bounds of the APE but have since been demolished) and three archaeological resources within or adjacent to the APE, which were determined to have been extremely disturbed by the construction of and improvements to the Ortega Highway in the 1930s and development of citrus orchards during the 1950s. All three sites are believed to have been prehistoric habitation sites and exhibited a large quantity of lithic material, both ground and flaked stone tools consisting of a variety of material; a chipped stone material quarry was noted

at site CA-ORA-26. No newly identified historic resources were documented within the APE during the February 2019 pedestrian survey; however, the potential still remains for encountering such resources during ground-disturbing activities associated with the proposed Project due to the distribution of recorded prehistoric sites in the immediate vicinity of San Juan Creek. Implementation of **Mitigation Measures CUL-1, CUL-2, and TC-1** would reduce potential impacts to unknown archaeological resources to less than significant with mitigation.

- ii) ***A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? Less Than Significant Impact with Mitigation.*** Refer to Response 16.18(a)(i) above. Implementation of **Mitigation Measures CUL-1, CUL-2, and TC-1** would reduce potential impacts to unknown archaeological resources to less than significant with mitigation.

With implementation of mitigation measures, potential Project-related impacts on tribal cultural resources would be reduced to less than significant.

16.19 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Require or result in the construction of new or expanded water, wastewater treatment or stormwater drainage, electrical power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the project:

- a) **Require or result in the construction of new or expanded water, wastewater treatment or stormwater drainage, electrical power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? Less Than Significant Impact.** The proposed Project would result in the construction of expanded stormwater drainage and treatment facilities at the Riding Park (i.e., CAFO stormwater treatment system) in order to address existing water quality and seasonal flooding issues. However, as described throughout the IS construction of the proposed Project would not result in significant physical impacts to the environment. Further, stormwater would be collected and treated within the CAFO stormwater treatment system and discharged into the existing sanitary sewer system. The proposed Project would not increase demand for stormwater drainage or wastewater treatment at an off-site facility. As such, construction of the proposed Project would not increase demand for water, wastewater treatment, stormwater drainage, electrical power, natural gas, or telecommunications facilities, such that additional facilities may be required in the future. Therefore, impacts would be less than significant.
- b) **Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? Less Than Significant Impact.** Short-term water demand for construction-related activities (e.g., watering exposed soils) would be similar to standard construction projects. Given the limited scope of the Project, this demand would be minor. Operationally, the proposed Project would not increase long-term water demand or water use at the Project site. Therefore, impacts related to water supplies would be less than significant.

- c) **Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? No Impact.** The proposed Project does not include housing or other development which would generate a substantial increase in wastewater. Due to the regular equestrian use and feeding operations at the Riding Park, stormwater from the Riding Park has the potential to carry pollutants into the receiving waters of San Juan Creek. Implementation of the proposed CAFO stormwater treatment system would collect existing stormwater from the Riding Park and treat the stormwater on-site. The treated stormwater would be conveyed from the underground cisterns to the existing sanitary sewer system. Therefore, the proposed facilities would not result in increased demand for stormwater or wastewater treatment, and there would be no impact.
- d) **Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? Less Than Significant Impact.** Removing the existing Arizona Crossing and restoring the streambank may result in the generation of solid waste materials (e.g., concrete, metal, etc.). These materials would either be re-used on-site or transported to a local permitted landfill, as necessary. As previously described in *Construction*, implementation of the proposed Project would require 1,000 cy of soil export associated with the streambank restoration and 700 cy of concrete, riprap, and rubble following removal of the Arizona Crossing. The total volume (1,700 cy or approximately 2,380 tons) of solid wastes generated by the proposed Project would be minor and would be well within the existing capacity of landfills in the region. For example, Prima Deshecha Landfill, located approximately 1.5 miles south of the Project site, permits 4,000 tons of solid waste per day. Following the completion of construction activities, the proposed Project would not generate solid waste. Therefore, impacts would be less than significant.
- e) **Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? No Impact.** Refer to Response 16.19(d), above.

Impacts on utilities and service systems associated with the proposed Project would be less than significant.

16.20 WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as a very high fire hazard severity zones, Would the Project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (e.g., roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the project:

- a) **Substantially impair an adopted emergency response plan or emergency evacuation plan? No Impact.** The proposed Project would not include any change to public roadway designs and would not introduce incompatible uses or line-of-sight issues. The Project would not conflict with an emergency response plan and traffic flows would not be interrupted on any roadway such that they would impair or otherwise interfere with emergency access to local roads. The proposed Project would not result in traffic delays that could substantially increase emergency response times or reduce emergency vehicle access. Construction vehicles would not park on roadways and, thus, would not create a hazard, interrupt vehicle line-of-sight, or otherwise block emergency access. Therefore, the proposed Project would have no impact.
- b) **Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? No Impact.** As previously described, the Project site is comprised of a portion of the Riding Park and San Juan Creek. Residences, as well as recreational open space, are located adjacent to and surrounding the Project site. The southwestern portion of the site is located within the Local Responsibility Area Very High Fire Hazard Severity Zone as identified by the CAL FIRE Fire Hazard Severity Zones Map (CAL FIRE 2011). However, no new structures or housing are proposed as a part of the proposed Project; therefore, no new people or structures would be exposed to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. The proposed Project would have no impact with respect to the potential uncontrolled spread of a wildfire.
- c) **Require the installation or maintenance of associated infrastructure (e.g., roads, fuel breaks, emergency water sources, power lines or other utilities) that may**

exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? No Impact. Installation of the proposed CAFO stormwater treatment system would involve trenching and excavation for the proposed stormwater drains and underground cisterns. Construction activities associated with this system would not exacerbate fire risk at the Riding Park. Additionally, operation of the CAFO stormwater treatment system would not result in increased risk of fire. Therefore, there would be no impacts.

- d) **Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? No Impact.** Refer to Responses 16.10(c-h).

The proposed Project would have no adverse impacts related to wildfire hazards.

16.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wild-life population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plants or animals, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (Cumulatively considerable means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a) **Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to decrease below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of major periods of California history or prehistory? Less Than Significant Impact with Mitigation.** As described in *Biological Resources* and *Cultural Resources* impacts on biological resources and cultural resources could be potentially significant; however, with the incorporation of all required mitigation measures, these impacts would be reduced to less than significant. Therefore, the proposed Project would not substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or reduce the number or restrict the range of an endangered, rare, or threatened species. In addition, the proposed Project would not eliminate important examples of California history or pre-history.
- b) **Does the project have impacts which are individually limited, but cumulatively considerable? (Cumulatively considerable means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) Less Than Significant Impact with Mitigation.** As discussed in this IS, the proposed Project would result in less than significant impacts or no impacts to aesthetics, agriculture and forestry resources, air quality, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems.

With the implementation of BMPs described in *Air Quality* and *Hydrology and Water Quality* as well as the mitigation measures described in *Biological Resources*, *Cultural Resources*,

and *Tribal Cultural Resources*, impacts associated with the implementation of the proposed Project would be less than significant. Since these impacts associated with the proposed Project would not be significant when compared to applicable thresholds, none of the proposed Project's impacts make cumulatively considerable, incremental contributions to significant cumulative impacts.

- c) ***Does the project have environmental effects which will have substantial adverse effects on human beings, directly or indirectly? Less Than Significant Impact.*** Construction of the proposed Project would generate noise and produce air emissions. However, as described in *Air Quality*, and *Noise*, the impacts to construction workers and surrounding residents would be less than significant. The proposed Project would not cause substantial adverse effects on human beings, either directly or indirectly.

17. PREPARATION

This IS/MND was prepared by the City of San Juan Capistrano with assistance by Wood Environment & Infrastructure Solutions, Inc., an environmental consultant under contract to the City.

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