3.3 Biological Resources

The focus of the following discussion and analysis concerns the potentially adverse impacts related to endangered, threatened, or special-status species as well as wildlife movement, riparian habitat, wetlands, and local policies resulting from implementation of each scenario. Additionally, the potential impact on the relationship of each scenario to an adopted or approved local, regional, or state conservation plan will be discussed.

RECON biologists conducted a general biological survey to assess the current condition of the biological resources. Three areas were surveyed as a part of this effort: the Eastern, Alessandro Arroyo, and Western Survey Areas (Figure 3.3-1). These survey areas directly correlate to the Project Impact Areas (PIAs) previously mentioned in the preceding sections of this Draft Environmental Impact Report (DEIR) (i.e., the Eastern and Alessandro Arroyo Survey Areas comprise Scenario 3, and the Eastern, Alessandro Arroyo, and Western Survey Areas comprise Scenario 4).

The surveys also included a directed search for sensitive plants. Routine wetland delineations were also performed to identify and map the extent of the wetlands and waters of the U.S. and provide information regarding jurisdictional issues.

Additionally, a Determination of Biologically Equivalent or Superior Preservation (DBESP) was prepared pursuant to the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) requirements. A DBESP is required when Project alternatives that would avoid sensitive riparian/riverine areas are not feasible. The goal of the DBESP is to demonstrate that, with implementation of Project design features and mitigation measures, the Project would result in an alternative that is biologically equivalent or superior to complete avoidance of impacts to riparian/riverine areas on-site. The findings of the biological technical report, jurisdictional delineation report, and DBESP are summarized below, and the reports are included as Appendix D to this DEIR.

3.3.1 Regulatory Setting

3.3.1.1 Federal

a. Federal Endangered Species Act

The Federal Endangered Species Act (ESA) of 1973 (16 United States Code [USC] 1531 et seq.) and subsequent amendments provide for the conservation of endangered and threatened species and the habitats on which they depend. A federally endangered species is one facing extinction throughout all or a significant portion of its geographical range. A federally threatened species is one likely to become endangered within the

foreseeable future throughout all or a significant portion of its range. Section 9 of the ESA prohibits the taking of endangered species, except as provided under Sections 4, 7, and 10. “Taking” means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” Section 10(a) allows the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) to authorize take of a listed species that is incidental to otherwise lawful activities. Approval criteria are specified in the ESA and federal regulations.

Section 9 of the ESA applies to the federally listed species and designated and proposed critical habitat in the Project vicinity. The study area is in an area covered by two Habitat Conservation Plans (HCP) approved under Section 10(a)—the Western Riverside County MSHCP and the Stephens’ Kangaroo Rat HCP, discussed further in Section 3.3.13 below.

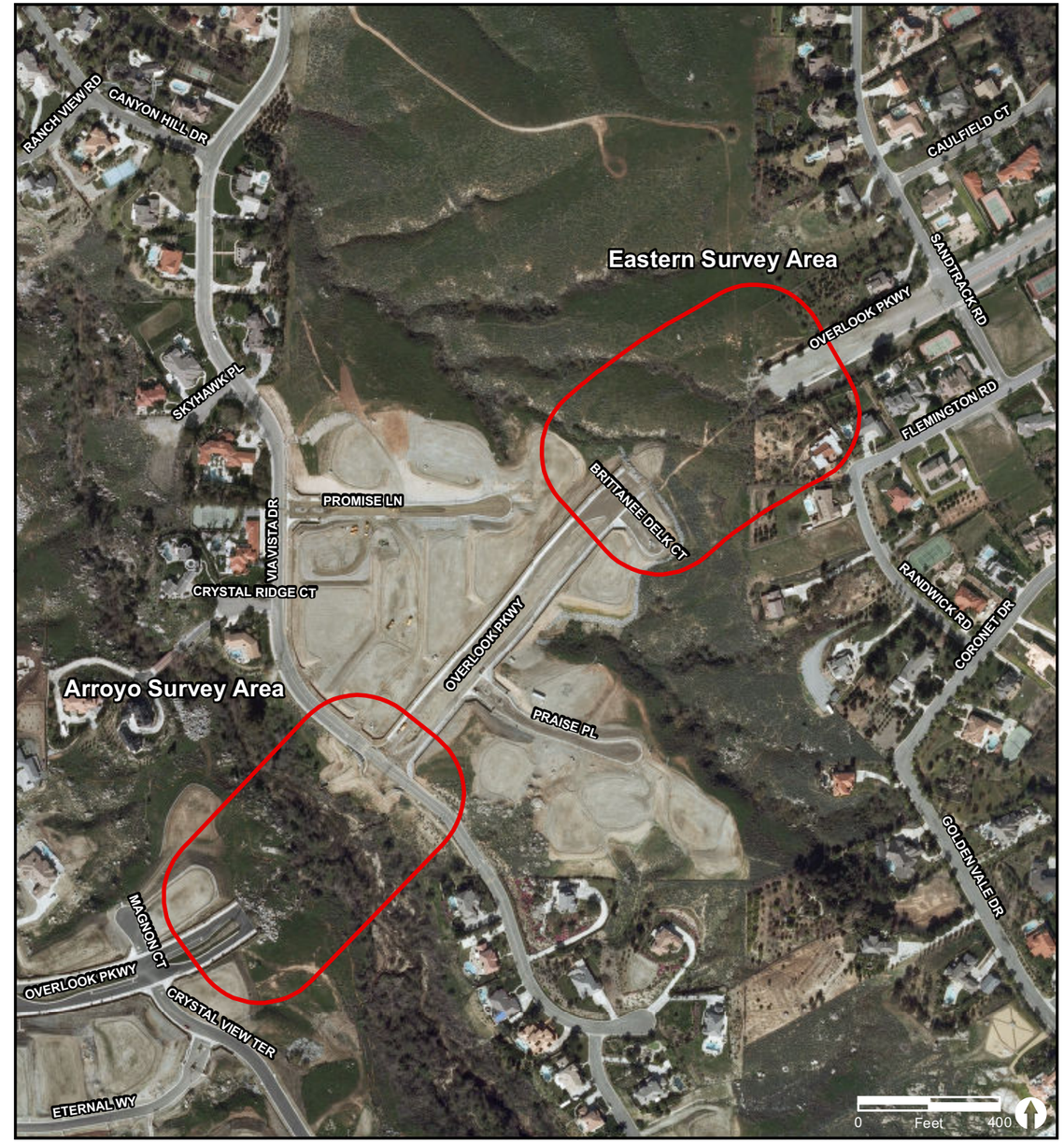
b. Clean Water Act

The U.S. Environmental Protection Agency (EPA) regulates water quality under the Clean Water Act (also known as the Federal Water Pollution Control Act). Enacted in 1972 and significantly amended in subsequent years, the Clean Water Act is designed to restore and maintain the chemical, physical, and biological integrity of waters in the U.S. The Clean Water Act provides the legal framework for several water quality regulations, including effluent limitations, water quality standards, pretreatment standards, anti-degradation policy, non-point source discharge regulation, and wetlands protection. As stated in the federal regulations for the Clean Water Act (40 Code of Federal Regulations [CFR] 230.3 and CE, 33 CFR 328.3), wetlands are defined as:

> Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions.

The U.S. Army Corps of Engineers (ACOE), through the authority of Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, is the primary agency involved in wetland regulation. The EPA has the authority to veto any decision by ACOE on permit issuance, as the EPA has the final authority over enforcement of wetland regulations. In accordance with Section 404 of the Clean Water Act, ACOE regulates the discharge of dredged and/or fill material into waters of the U.S. Within areas delineated as jurisdictional waters of the U.S. and adjacent wetlands, all activities resulting in the discharge of fill material require a permit from ACOE. Discharge of fill material relates to activities such as causeways or road fills, including bridges; dams and dikes; and pier and/or dock construction (33 CFR 323.2[f]). In addition, Section 401 of the Clean Water Act requires an applicant to obtain certification for any activity that may result in a discharge of a pollutant into waters of the U.S. Section 401 and is discussed below in Section 3.3.1.2.

Image Source: City of Riverside, 2009



Study Area

RECON

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FIGURE 3.3-1

Biological Study Area

c. Migratory Bird Treaty Act

According to the Migratory Bird Treaty Act (MBTA) (16 USC 703-711) administered by the USFWS, the removal of active nests, eggs, or nestlings is unlawful. A violation of the MBTA may occur on, but is not limited to, projects that involve clearing or grubbing of migratory bird nest habitat during the nesting season, and demolition or reconstruction where bird nests are present. This time period is especially important due to the heightened presence of eggs or young that are essential to the survival of the species. Consequently, prior to initiating a project that includes potential bird habitat removal, it is generally recommended that a nesting bird survey be done if that habitat removal is proposed to be completed during the nesting season. The MBTA protects active nest sites and nesting birds in the Project vicinity. The MSHCP includes measures to comply with MBTA.

d. Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 USC 668) prohibits, except under specified conditions, the take, possession, and commerce of bald or golden eagles and their nests. A special permit is required for any authorized take. The MSHCP includes measures to comply with the Bald and Golden Eagle Protection Act.

3.3.1.2 State

a. Porter-Cologne Water Quality Control Act

The Porter-Cologne Act, passed in 1969, established the State Water Resources Control Board and divided the state into nine regions, each overseen by a Regional Water Quality Control Board (RWQCB). Impacts to waters of the U.S. are authorized under the Clean Water Act Section 404, which requires as one of its conditions that a Section 401 State Water Quality Certification be issued. In California, the RWQCBs administer Section 401 and has jurisdiction over all waters of the U.S and waters of the state as defined by both the Clean Water Act and the Porter-Cologne Act. The RWQCB evaluates the impact to the quality of waters. Specifically, “quality of waters” refers to chemical, physical, biological, bacteriological, radiological, and other properties and characteristics of water that affect its use. The Santa Ana RWQCB issues 401 permits and waste discharge requirements within the Project vicinity.

b. California Department of Fish and Game Code

The California Department of Fish and Game (CDFG) is responsible for protecting, conserving, and managing wildlife, plant, fish, and riparian resources in the state of California. The applicable regulations under the CDFG Code are outlined below.

Streambed Alteration

Under Sections 1600–1607 of the CDFG Code, CDFG regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. CDFG has jurisdiction over riparian habitats (e.g., southern willow scrub) associated with watercourses. CDFG jurisdictional resources are delineated by the outer edge of riparian vegetation or at the top of the bank of streams or lakes, whichever is wider. A Streambed Alteration Agreement is required for a project that impacts certain CDFG jurisdictional resources. Such an Agreement with CDFG would most likely require mitigation in the form of on-site, off-site, or in-lieu fee mitigation, or combination of all.

Native Plant Protection Act

CDFG Code Sections 1900–1913 prohibit taking of endangered and rare plants from the wild and requires that CDFG be notified at least 10 days in advance of any change in land use that would adversely impact listed plants. The Native Plant Protection Act applies to the state-listed plants in the study area that have the potential to be impacted. The study area is covered by the MSHCP, which includes provisions for listed plants.

California Endangered Species Act

The California ESA is a component of the CDFG Code. Sections 2080 et seq. prohibit the take of state-listed and state candidate species, except as provided under Sections 2081, 2080.1, 2081, 2835, and the Native Plant Protection Act. Section 2080.1 allows CDFG to authorize incidental take of state-listed species covered by an ESA Section 10(a) permit. Section 2081 allows CDFG to authorize incidental take of state-listed species. The California ESA applies to the state-listed and candidate species within the Project vicinity. The Project vicinity is also covered by a 2081 permit, allowing incidental take of Stephens' kangaroo rat (*Dipodomys stephensi*).

Natural Community Conservation Planning Act (NCCP Act)

CDFG Code Sections 2800–2835 provide for the development and implementation of a Natural Community Conservation Plan (NCCP) to sustain and restore habitats and species on an ecosystem or landscape scale. Section 2835 allows CDFG to authorize incidental take of listed species covered by an approved NCCP. The study area is covered by the MSHCP, which is an approved NCCP. CDFG authorized incidental take of other state species under the MSHCP pursuant to Section 2835 of the NCCP Act.

Protection of Birds

CDFG Code Sections 3503 and 3513 provide legal protection for almost all breeding bird species in California. These regulations restrict the killing, taking, collecting, selling, and purchasing of native bird species or their parts, nests, or eggs. Certain game bird

species are allowed to be hunted for specific periods. The study area is covered by the MSHCP, which includes provisions for native bird species.

3.3.1.3 Local

a. Western Riverside County Multiple Species Habitat Conservation Plan

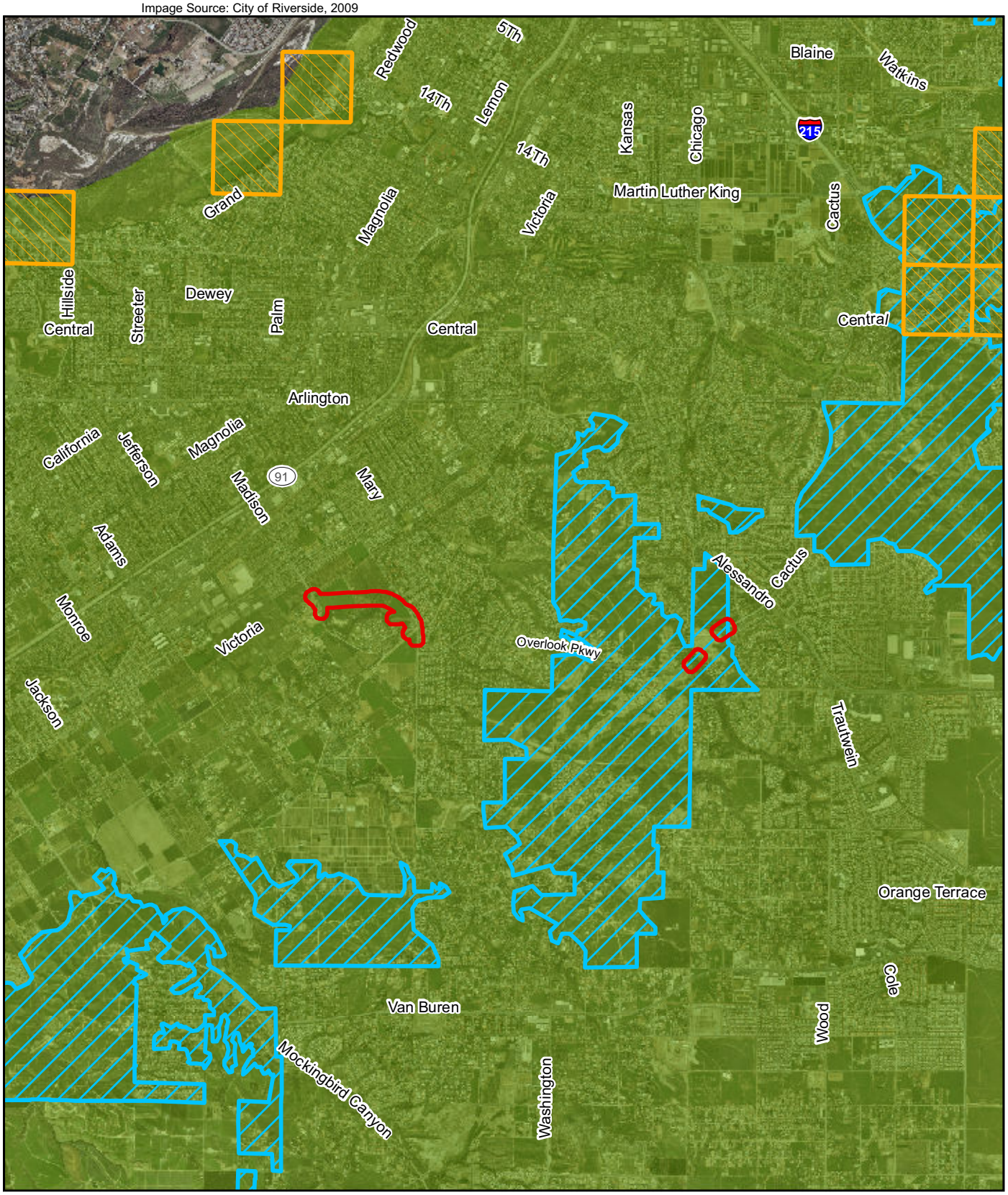
The Western Riverside County MSHCP is a comprehensive, multi-jurisdictional HCP focusing on conservation of species and their associated habitats in western Riverside County. The MSHCP is one of several large, multi-jurisdictional habitat-planning efforts in southern California with the overall goal of maintaining biological and ecological diversity within a rapidly urbanizing region. The MSHCP is a “criteria-based” plan, focused on preserving individual species through conservation. Conservation is based on the particular habitat requirements of each species as well as the known distribution data for each species.

As discussed above, the MSHCP serves as a HCP pursuant to Section 10(a)(1)(B) of the federal ESA of 1973 (16 USC 1531 et seq.), as well as a NCCP under CDFG Code, Section 2800 et seq. The USFWS and CDFG have authority to regulate the take of threatened, endangered, and rare species. The MSHCP allows the participating jurisdictions to authorize “take” of plant and wildlife species identified within the plan area. Under the MSHCP, the wildlife agencies have granted “take authorization” for otherwise lawful actions, such as public and private development that may incidentally take or harm individual species or their habitat outside of the MSHCP conservation area, in exchange for the assembly and management of a coordinated MSHCP conservation area.

Plans like the MSCHP are designed to allow development to occur in designated areas in exchange for a preserve system to ensure the survival of many sensitive species. Therefore, biologically important areas with high-quality habitat are set aside for mitigation and protection to balance the growth and urbanization. Within western Riverside County, a MSHCP reserve is planned to be assembled over time from a smaller subset of the plan area referred to as the “Criteria Area.” The Criteria Area consists of criteria cells (cells) or cell groupings, and flexible guidelines (criteria) for the assembly of conservation within the cells or cell groupings. Cells and cell groupings also may be included within larger units known as cores, linkages, or non-contiguous habitat blocks. The study area is outside of any Criteria Cell, and at its closest point is 2.4 miles northeast of the nearest Criteria Cell (Figure 3.3-2).

The provisions of the MSHCP applicable to Scenarios 3 and 4 are detailed in Table 3.3-1. The study area is located within the Riverside and Norco Plan Areas of the MSHCP. The Riverside/Norco Area Plan includes approximately 3,375 acres of conserved or otherwise protected habitat (County of Riverside 2003a). The existing conserved habitat

Impage Source: City of Riverside, 2009



0 Miles 1

Study Area

WRC MSHCP Criteria Cell

California Gnatcatcher Critical Habitat

Stephen's Kangaroo Rat Fee Area

FIGURE 3.3-2

Study Area in Relation to MSHCP Criteria Cells, Critical Habitat, and Stephens' Kangaroo Rat Fee Area

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TABLE 3.3-1
PROVISIONS OF THE MSHCP APPLICABLE TO EACH SCENARIO

Component	Applicable Provisions and Relevance to Scenarios	Scenario 3	Scenario 4
Plan Area	Plan Area: Area where the MSHCP provisions apply to participating entities. Includes 1.26 million acres in western Riverside County.	The Eastern and Arroyo PIAs are within the MSHCP Plan area.	The Western PIA is within the MSHCP Plan area.
	Area Plan: Community planning area identified in the Riverside County General Plan and used for implementation planning in the MSHCP. Plan identifies conservation targets for each Area Plan.	The Eastern and Arroyo PIAs are part of the Cities of Riverside/Norco Area Plan.	The Western PIA is part of the Cities of Riverside/Norco Area Plan
	Criteria Area: Approximately 310,000 acres within the MSHCP plan area. Divided into 160-acre cells, from which an additional 153,000 acres will be conserved under the MSHCP.	The Eastern and Arroyo PIAs are outside of the Criteria Area, and are not adjacent to a Criteria Area cell.	The Western PIA is outside of the Criteria Area, and is not adjacent to a Criteria Area cell.
	MSHCP Conservation Area: Area conserved and managed for the species covered by the MSHCP. Includes approximately 347,000 acres of existing public and quasi-public lands; approximately 153,000 acres to be added over time.	The Eastern and Arroyo PIAs are not within an MSHCP Conservation Area. At the nearest point, the Eastern PIA is approximately 1.5 miles west of the Sycamore Canyon Wilderness Park.	The Western PIA is not within an MSHCP Conservation Area. At the nearest point, the Eastern PIA is approximately 1.5 miles west of the Sycamore Canyon Wilderness Park.
	Survey Areas: Areas in and outside of the Criteria Area where MSHCP requirements for species surveys apply. Some survey areas are mapped; other surveys are triggered by the presence of certain resources (riparian, riverine, vernal pool). Some survey requirements apply only to Criteria Area cells; others apply throughout the MSHCP plan area.	The Eastern and Arroyo PIAs have resources that trigger survey requirements for riparian species. No other MSHCP survey requirements apply to this scenario.	The Western PIA is within the MSHCP burrowing owl survey area. The Eastern and Arroyo PIAs have resources that trigger survey requirements for riparian species. No other MSHCP survey requirements apply to the project.
Reserve Assembly	Addition of approximately 153,000 acres to the MSHCP Conservation Area will occur over a 25-year period. Of this goal, the permittees are responsible for 97,000 acres; cooperative actions by federal and state agencies will provide the additional acres.	The Eastern and Arroyo PIAs are not within an MSHCP Criteria Area Cell or Conservation Area.	The Western PIA is not within an MSHCP Criteria Area Cell or Conservation Area.

TABLE 3.3-1
PROVISIONS OF THE MSHCP APPLICABLE TO EACH SCENARIO
(continued)

Component	Applicable Provisions and Relevance to Scenarios	Scenario 3	Scenario 4
Covered Activities	Outside Criteria Area: Public and private development including construction of buildings, structures, infrastructure, and all alterations of the land, which are carried out by plan participants.	The Eastern and Arroyo PIAs are outside of the Criteria Area, and no part of the project area is adjacent to a Criteria Area cell.	The Western PIA is outside of the Criteria Area, and no part of the project area is adjacent to a Criteria Area cell.
	Inside Criteria Area: Proposals for new or altered land uses by plan participants must be evaluated for effect on reserve assembly. Allowable uses must comply with plan survey and impact avoidance, minimization, and mitigation requirements.	No aspects of this scenario entail activities inside the Criteria Area.	No aspects of this scenario entail activities inside the Criteria Area.
	Within Conservation Area: Limited primarily to reserve management and monitoring activities, compatible uses identified in the MSHCP, emergency repairs to public infrastructure facilities and utilities carried out by plan participants, and conditionally compatible uses that comply with requirements of the MSHCP.	The Eastern and Arroyo PIAs are not within a Conservation Area.	The Western PIA is not within a Conservation Area.
Project-Level Requirements	Joint Project Review: If any part of a proposed project is within a criteria cell, the project is subject to review by the Regional Conservation Agency, USFWS, and CDFG. The "Joint Project Review" process entails an assessment of the habitat affected by the project and the possible inclusion of that habitat in the reserve system. It also assesses whether the proposed land use could be compatible with achieving the conservation goals for the criteria cell(s). The review is based on site-specific information and requires an analysis of impact avoidance and biologically superior alternatives.	The Eastern and Arroyo PIAs are not within a criteria cell and thus are not subject to Joint Project Review.	The Western PIA is not within a criteria cell and thus is not subject to Joint Project Review.
	Protection of Riparian/Riverine Areas and Vernal Pools: Requires mapping and avoidance of impacts on riparian, riverine, and vernal pool/fairy shrimp habitat, and other aquatic resources. If avoidance not feasible, local agency must determine that alternative is biologically equivalent or superior to impact avoidance.	Scenario 3 would affect and would conserve riparian/riverine areas and is subject to the MSHCP riparian/ riverine protection and survey provisions. Either the restoration or dedication of lands would contribute to attainment of the riparian/riverine goals of the MSHCP.	Scenario 4 would affect and would conserve riparian/riverine areas and is subject to the MSHCP riparian/ riverine protection and survey provisions. Either the restoration or dedication of lands would contribute to attainment of the riparian/riverine goals of the MSHCP.

TABLE 3.3-1
PROVISIONS OF THE MSHCP APPLICABLE TO EACH SCENARIO
(continued)

Component	Applicable Provisions and Relevance to Scenarios	Scenario 3	Scenario 4
Project-Level Requirements (continued)	Surveys for Riparian Species: Focused surveys are required for the least Bell's vireo, southwestern willow flycatcher, western yellow-billed cuckoo, and fairy shrimp species (Riverside, Santa Rosa Plateau, and vernal pool fairy shrimp) if suitable habitat is present on the project site and avoidance alternative is not feasible. Conservation goal is 90 to 100 percent of those occupied areas that provide for the long-term conservation of these species, including 100 meters of undeveloped landscape adjacent to avoided areas.	The Eastern and Arroyo PIAs contain resources that trigger the survey requirements for riparian species. A Biological Technical Report was drafted in March 2012 that included an assessment of suitable habitat for riparian species. The analysis concluded that no vernal pools or other hydrologic features with the potential to support fairy shrimp are present in the study area. Suitable habitat for least Bells' vireo occurs within the Arroyo PIA. USFWS protocol breeding season surveys for the least Bell's vireo were conducted within the Arroyo Survey Area from early May to mid-July in 2011. This species was not detected during the surveys; however, there is potential for this species to nest within the riparian/riverine habitat due to the presence of suitable southern willow scrub vegetation. An avoidance alternative was developed as part of the four scenarios evaluated in this EIR (i.e. Scenarios 1 and 2). Therefore, avoidance is not feasible and a practicable alternative when evaluating Scenario 3, thus a DBESP was prepared to ensure replacement of any lost functions and values of habitat as it relates to Covered Species. If Scenario 3 were selected by the City Council, prior to approval of Biologically Equivalent or Superior Preservation Determinations, the Wildlife Agencies would be notified and be provided a 60-day review and response	The Western PIA does not contain habitat suitable for riparian species. Because Scenario 4 also contains the Arroyo PIA, if Scenario 4 were selected by the City Council, prior to approval of Biologically Equivalent or Superior Preservation Determinations, the Wildlife Agencies would be notified and be provided a 60-day review and response period. A written record of determinations shall be maintained and shall be included in the annual reporting documentation prepared by the Permittees and submitted to the Wildlife Agencies as set forth in Section 6.11 of the MSHCP.

TABLE 3.3-1
PROVISIONS OF THE MSHCP APPLICABLE TO EACH SCENARIO
(continued)

Component	Applicable Provisions and Relevance to Scenarios	Scenario 3	Scenario 4
Project-Level Requirements (continued)		period. A written record of determinations shall be maintained and shall be included in the annual reporting documentation prepared by the Permittees and submitted to the Wildlife Agencies as set forth in Section 6.11 of the MSHCP.	
	Protection of Narrow Endemic Plant Species: Focused surveys required in designated areas for 14 narrow endemic plant species if appropriate habitat or soils are present. Information obtained from surveys is used to prioritize areas for acquisition. Where plants are found, avoidance goal is a minimum of 90 percent of those portions of the property that could provide for long-term conservation of the species on the project site. Avoided areas will remain in “status quo” until it is demonstrated that species conservation goals are met in the plan area.	The Eastern and Arroyo PIAs are not in any of the areas where surveys for narrow endemic plants are required but has been assessed for the potential occurrence of special status plants.	The Western PIA is not in any of the areas where surveys for narrow endemic plants are required but has been assessed for the potential occurrence of special status plants.
	Surveys for Other MSHCP Species: In addition to surveys for the narrow endemic plant and riparian species, habitat assessments are required in suitable habitat for 13 plants and 7 animals in designated areas. The survey area for the burrowing owl is largest. Where found, the goal is to avoid impacts on 90 percent of the occupied habitat until conservation objectives for the species are met.	The Eastern and Arroyo PIAs are located within the area where burrowing owl habitat assessments are required. Suitable western burrowing owl habitat is not present in the Eastern and Arroyo PIAs given the lack of open habitat that provides foraging opportunities and soft, sandy soil that allows for burrowing. Therefore, a focused survey is not required.	The Western PIA is located within the area where burrowing owl habitat assessments are required. Suitable western burrowing owl habitat is not present in the Western PIA given the lack of open habitat that provides foraging opportunities and soft, sandy soil that allows for burrowing. Therefore, a focused survey is not required.
	Other: Edge effects on the conservation area must be addressed, and guidelines must be provided for avoidance and minimization. Effects on habitat linkages between conservation areas must be addressed, and guidelines must be provided for avoidance and minimization.	The Eastern and Arroyo PIAs are not within a Conservation Area.	The Western PIA is not within a Conservation Area.

is concentrated along the Santa Ana River and in Sycamore Canyon Wilderness Park. Under the MSHCP, the goal is to conserve an additional 90 to 240 acres in the Riverside/Norco Area Plan, with approximately 75 to 200 acres added along the Santa Ana River and 15 to 40 acres added to Sycamore Canyon Wilderness Park (County of Riverside 2003a). Planning species and the biological issues/considerations identified in the MSHCP for the Riverside/Norco Area Plan are listed in Table 3.3-2. Additional detail is provided in Section 3.3.17 of the MSHCP, Volume I.

b. Stephens' Kangaroo Rat Habitat Conservation Plan

In 1996, USFWS approved a long-term HCP for Stephens' kangaroo rat and granted an incidental take permit for Riverside County covering an estimated 30,000 acres of occupied habitat (Riverside County Habitat Conservation Agency [RCHCA] 1996). The plan authorizes the incidental take of half of the occupied habitat remaining in the HCP plan area while using development fees to implement the plan, purchase private property, and create a reserve system. The Stephens' Kangaroo Rat HCP and corresponding permits are in effect for areas covered by the MSHCP; however, at this stage, the Stephens' Kangaroo Rat HCP and the MSHCP remain separate.

The Stephens' Kangaroo Rat HCP established seven core reserves within western Riverside County and provides for the ongoing management of the occupied Stephens' kangaroo rat habitat within those reserves. All other properties within the Stephens' Kangaroo Rat HCP plan area are within the plan "fee area," where development is permitted and project compliance is achieved with payment of a mitigation fee. All three survey areas occur within the Stephens' kangaroo rat habitat mitigation fee area of the HCP (see Figure 3.3-2) (RCHCA 1996).

c. City of Riverside General Plan 2025

The Open Space and Conservation and Land Use and Urban Design Elements of the General Plan 2025 contain policies related to biological resources in the City of Riverside (City). The Open Space and Conservation Element states that "the Santa Ana River, major arroyos [such as the Alessandro Arroyo] and other open space resources serve as wildlife corridors for the movement of species throughout the region" (City of Riverside 2007b). Furthermore, since major arroyos are recognized by the General Plan 2025 for their functions and values to wildlife and wildlife movement, grading and removal of native vegetation within the arroyo is prohibited by the City's Grading Code Title 17, Ordinances 6453 Section 1 and 6673 Sections 6, 7, 8, 9.

TABLE 3.3-2
PLANNING SPECIES AND BIOLOGICAL ISSUES/CONSIDERATIONS FOR THE RIVERSIDE/NORCO AREA PLAN

Subunit	Planning Species	Biological Issues and Considerations
Santa Ana River South	• Santa Ana River woollystar • Arroyo chub • Santa Ana sucker • Western pond turtle • Black-crowned night-heron • Burrowing owl • Cooper's hawk • Double-crested cormorant • Downy woodpecker • Least Bell's vireo • Loggerhead shrike • Osprey • Peregrine falcon • Southwestern willow flycatcher • Tree swallow • Western yellow-billed cuckoo • White-faced ibis • White-tailed kite • Yellow-breasted chat • Yellow warbler • Bobcat	• Conserve existing wetlands • Conserve alluvial fan sage scrub to support key populations of Santa Ana River woolly-star • Conserve habitat for least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo • Provide for and maintain a linkage along the Santa Ana River from the east boundary of Riverside to the Prado Basin • Conserve foraging and breeding habitat in adjacent grasslands to support special status bird species such as burrowing owl and loggerhead shrike • Maintain core and linkage habitat for bobcat • Maintain core area for western pond turtle • Maintain habitat for arroyo chub and Santa Ana sucker
Sycamore Canyon West	• Bell's sage sparrow • Loggerhead shrike • Southern California rufous-crowned sparrow • Bobcat	• Augment conservation in Sycamore Canyon/Box Canyon unit of Highgrove Area Plan • Conservation grasslands adjacent to sage scrub for foraging habitat for raptors • Maintain linkage area for bobcat • Conserve upland habitat supporting Bell's sage sparrow and Southern California rufous-crowned sparrow

The General Plan 2025 also includes specific policies to reduce potential environmental impacts to sensitive species, habitats, and wildlife corridors.

Open Space and Conservation Element

Policy OS-5.1: Preserve significant habitat and environmentally sensitive areas, including hillsides, rock outcroppings, creeks, streams, viewsheds, and arroyos through application of the RC Zone standards and the Hillside/Arroyo standards of the City's Grading Code.

Policy OS-5.2: Continue to participate in the MSHCP Program and ensure all projects comply with applicable requirements.

Policy OS-5.3: Continue to participate in the Stephens' Kangaroo Rat Habitat Conservation Plan including collection of mitigation fees.

Policy OS-5.4: Protect native plant communities in the General Plan Area, including sage scrub, riparian areas and vernal pools, consistent with the MSHCP.

Policy OS-6.1: Protect and enhance known wildlife migratory corridors and create new corridors as feasible.

Policy OS-6.2: Support regional and local efforts to acquire, develop, and maintain open space linkages.

Policy OS-6.3: Preserve the integrity of Riverside's arroyos and riparian habitat areas through the preservation of native plants.

Land Use and Urban Design Element

Policy LU-5.1: Minimize public and private development in and in close proximity to any of the City's arroyos.

Policy LU-5.3: Encourage that any crossings of the City's major arroyos are span bridges or soft bottom arch culverts that minimize disturbance of the ground and any wetland area. At grade crossings are strongly discouraged in major arroyos. To minimize disturbance of the arroyo the design will take into consideration aesthetics, biological, hydrological and permitting (i.e., MSHCP, ACOE, CDFG, etc.) requirements to promote the free movement of water and wildlife. In addition, areas of the arroyo disturbed by construction will be restored consistent with requirements of the MSHCP, as well as the ACOE's 404 Permit Program and CDFG's Streambed Alteration Agreement Program as applicable.

Policy LU-5.4: Continue to require open space easements in conjunction with new development to be recorded over arroyo areas, per the City's Grading Code.

Policy LU-5.5: Work with Riverside County to develop, implement, and maintain comprehensive management plans for protection of entire arroyo systems.

d. City of Riverside Urban Forestry Policy Manual

The purpose of the Urban Forestry Policy Manual is to provide guidelines for the preservation and protection of the tree heritage and the urban forest of Riverside. The Policy Manual (City of Riverside 2007c) documents guidelines for the planting, pruning, preservation, and removal of all trees in City right-of-ways and recreational facilities. The specifications are based on national standards for tree care established by the International Society of Arboriculture, the National Arborists Association, and the American National Standards Institute. The Policy Manual is a reference for use by City staff, private contractors, volunteer organizations, and citizens when working in and around trees within City jurisdiction.

A subset of the Urban Forestry Policy Manual is the Master Urban Forest Plan Guidelines. These guidelines were designed to provide optimum tree selection in order to reduce future problems and expense. The guidelines are used to facilitate the species selection based on a review of tree size at maturity, as well as physical characteristics. Each neighborhood block has been evaluated, and designated species have been chosen and approved by the Parks, Recreation, and Community Services Commission to ensure that the right tree is planted in the right place. Tree species to be planted in the right-of-way are selected and/or approved by the Public Works Department based on site conditions and tree planting guidelines.

3.3.2 Environmental Setting

The Project vicinity is a large area generally bounded by John F. Kennedy Drive and Hermosa Drive to the south, Adams Street and SR-91 to the west, Arlington Avenue to the north, and Alessandro Boulevard and Trautwein Road to the east. However, a more specific study area was developed for the evaluation of biological resources. The study area is approximately 100 acres and includes areas where roadways and associated facilities proposed by one or more of the scenarios could require construction and other ground disturbing activities. The three survey areas correlate to the PIAs, but include a 200-foot buffer (see Figure 3.3-1).

3.3.2.1 Existing Flora and Fauna

a. Flora

As listed in Table 3.3-3 and shown on Figure 3.3-3, 10 vegetation communities and land cover types are present, including southern willow scrub, freshwater marsh, Riversidean sage scrub, disturbed Riversidean sage scrub, non-native grassland, disturbed land, active agricultural land, orchard, ornamental vegetation, and developed. No vernal pools were mapped within the study area.

TABLE 3.3-3
VEGETATION COMMUNITIES AND LAND COVER TYPES (acres)

Vegetation Communities/ Land Cover Types	Total Acres in Eastern Survey Area	Total Acres in Alessandro Arroyo Survey Area	Total Acres in Western Survey Area	TOTAL in Study Area
Southern willow scrub	0.25	1.77	0.00	2.02
Freshwater marsh	0.01	0.00	0.00	0.01
Riversidean sage scrub	5.45	4.46	0.00	9.91
Disturbed Riversidean Sage Scrub	0.07	0.00	0.00	0.07
Non-native grassland	0.00	0.00	31.25	31.25
Disturbed land	0.20	0.80	6.93	7.93
Active agricultural land	0.00	0.00	2.51	2.51
Orchard	0.00	0.00	10.01	10.01
Ornamental vegetation	0.25	0.00	0.43	0.68
Developed	4.82	3.29	28.26	36.37
TOTAL per survey area	**11.05**	**10.32**	**79.39**	**100.76**

A total of 41 plant species were identified within the study area (see Appendix D). Of this total, 23 (56 percent) are introduced species and 18 (44 percent) are native to southern California. Sensitive plant species are discussed below in Section 3.3.2.2.

b. Fauna

The wildlife observed within the study area is typical of urban communities within Riverside. Three mammal species, desert cottontail (*Sylvilagus audubonii*), California ground squirrel (*Spermophilus beecheyi*), and northern raccoon (*Procyon lotor*), were observed or detected within the Riversidean sage scrub and non-native grassland in the Eastern and Western Survey Areas, respectively. The most commonly observed bird species within the survey areas are typical of riparian and urban habitats, including mourning dove (*Zenaida macroura*), house wren (*Troglodytes aedon parkmanii*), and killdeer (*Charadrius vociferous vociferus*). A complete list of the species detected is provided in Appendix D.

3.3.2.2 Special Status Resources

This section identifies biological resources that are considered sensitive or are subject to special protections under existing regulations, policies, and programs. The resources are grouped into the following categories: special status species, jurisdictional and riparian resources, and wildlife linkages.

a. Special Status Species

Plants and animals are identified as being "special status species" if they are:

1. Listed or proposed for listing under federal or state law;
2. Identified as "sensitive," "a species of concern," or "a species of special concern" on lists maintained by federal or state agencies;
3. On the list of endangered and rare plant species maintained by the California Native Plant Society (CNPS); or
4. A species for which surveys are required under the MSHCP.

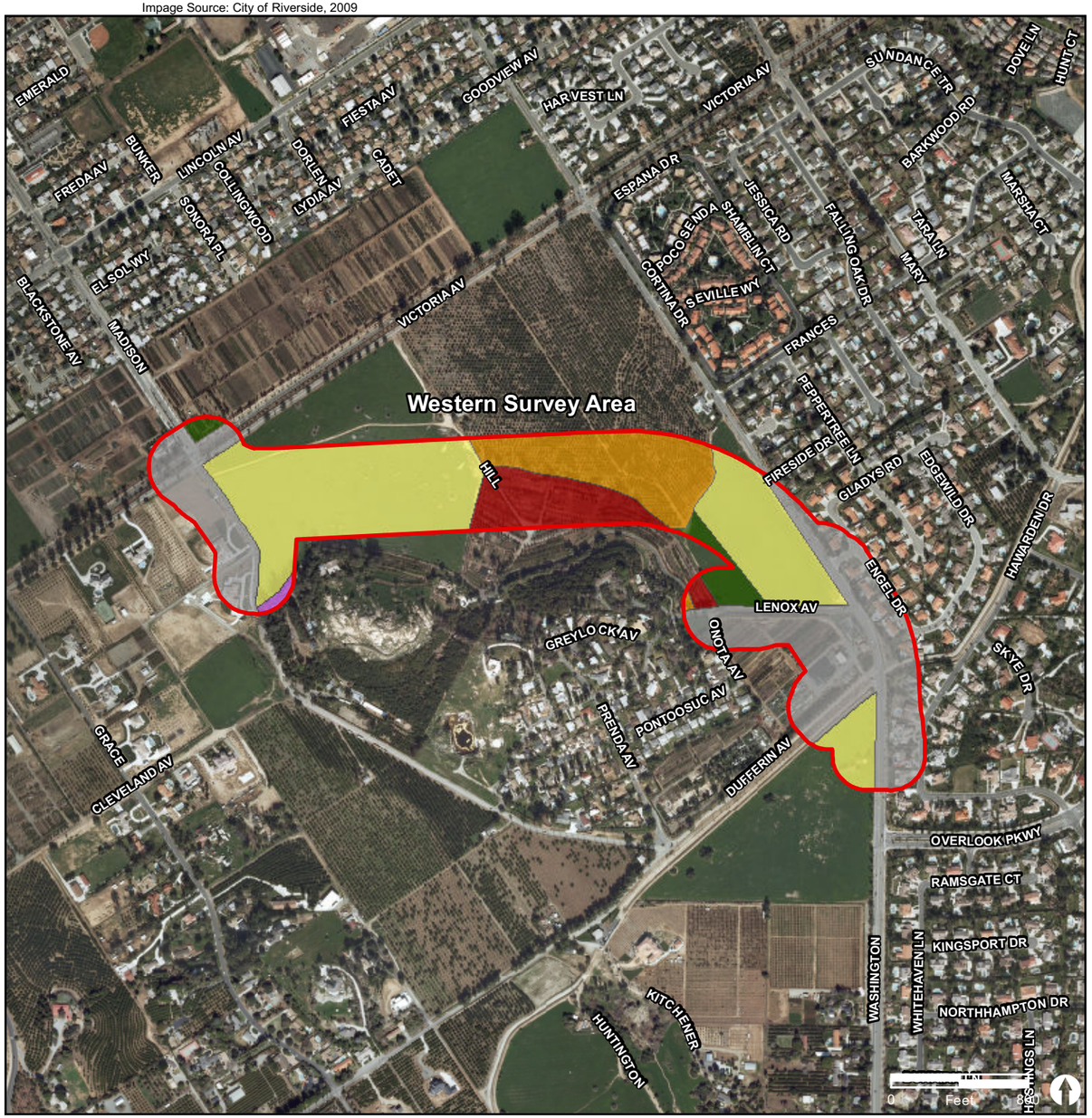
Special Status Plant Species

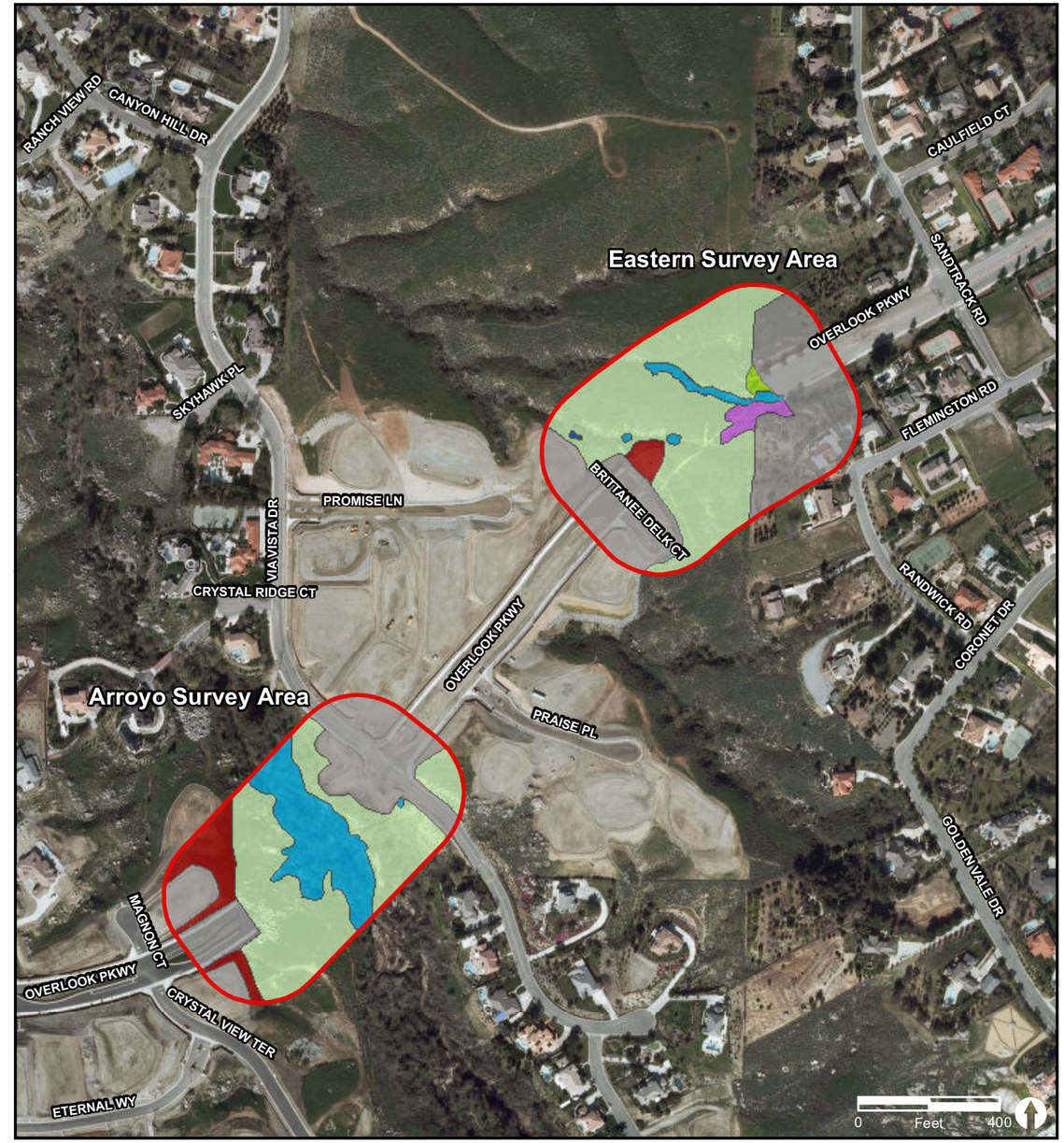
Table 3.3-4 identifies special status plant species known to occur in the Project vicinity (within two miles of the survey areas) that are federally listed, threatened, or endangered, or that have potential to occur based on species range. In accordance with MSHCP requirements, no sensitive plant habitat assessments were recommended for any of the three survey areas. One plant, graceful tarplant (*Holocarpha virgata* ssp. *elongata*), which is a Group 2 MSHCP (County of Riverside 2003a) and CNPS List 4 species (CNPS 2001), was observed during the survey. This species was observed in low numbers, scattered within the Riversidean sage scrub vegetation location within the Eastern Survey Area.

Special Status Wildlife Species

Table 3.3-5 details special status wildlife species known to occur in the Project vicinity (within two miles of the survey areas) or that have potential to occur based on species range. Two special status wildlife species were observed during surveys. Lincoln's sparrow (*Melospiza lincolnii*), a MSHCP-covered species (during the breeding season), was observed in the winter, foraging in the non-native grassland within the Western Survey Area. Belding's orange-throated whiptail (*Aspidoscelis* [=*Cnemidophorus*] *hyperythrus beldingi*), a CDFG species of special concern, was detected in the Eastern Survey Area in the summer.

Image Source: City of Riverside, 2009





Study Area

Vegetation Communities

- Southern Willow Scrub
- Fresh Water Marsh
- Riversidian Sage Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Disturbed
- Active Agricultural Field
- Orchard
- Ornamental
- Developed

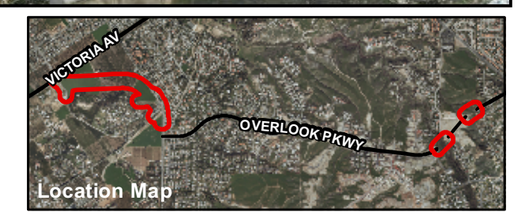


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FIGURE 3.3-3

Existing Vegetation Communities/Land Cover Types

TABLE 3.3-4
SENSITIVE PLANT SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE STUDY AREA
(continued)

Scientific/Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Observed On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
LILIACEAE					
Brodiaea filifolia Thread-leaved brodiaea	FT, CE, 1B, NE	Perennial herb (bulbiferous); cismontane woodland, coastal sage scrub, playas, valley and foothill grassland, vernal pools, often clay; blooms March–June; elevation less than 4,000 feet.	No	Unlikely	There are no known occurrences in the project vicinity (State of California 2010c) and no suitable habitat or clay soils are present within the survey areas.
POLEMONIACEAE	**PHLOX FAMILY**				
Eriastrum densifolium ssp. *sanctorum* Santa Ana River woolly-star	FE, CE, 1B, NE	Perennial herb; alluvial-fans	No	Unlikely	This species is not expected to occur as it is a perennial herb and would have been apparent at the time of the surveys. However, Hanford coarse sandy loam, an alluvial fan soil, is present within the Alessandro Arroyo Survey Area which provides suitable soil conditions. There are no known occurrences in the project vicinity (State of California 2010c)
Navarretia fossalis Spreading navarretia	FT, 1B, MSHCP	Annual herb; freshwater-marsh, vernal-pools	No	Unlikely	There are no known occurrences in the project vicinity (State of California 2010c) and no suitable habitat is present.
POLYGONACEAE	**BUCKWHEAT FAMILY**				
Chorizanthe parryi var. *parryi* Parry's spineflower	1B	Open Chaparral, Coastal Sage Scrub, sandy soils	No	Likely	Parry's spineflower was not observed during the surveys; however, there is potential for this species to occur within the Riversidean sage scrub within the Alessandro Arroyo and Eastern Survey Areas. This species has been observed within two-miles of the western survey area (State of California 2010c).

TABLE 3.3-4
SENSITIVE PLANT SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE STUDY AREA
(continued)

Scientific/Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Observed On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
Dodecahema leptoceras Slender-horned spineflower	FE, CE, 1B, MSHCP	Annual herb; chaparral, cismontane woodland, coastal sage scrub, alluvial fans and sandy areas; blooms April–June; elevation 600–2,500 feet.	No	Likely	Slender-horned spineflower was not observed during the surveys; however, there is potential for this species to occur within the Riversidean sage scrub within the Alessandro Arroyo and Eastern Survey Areas and within the Alessandro Arroyo due to suitable soils. There are no known occurrences in the project vicinity (State of California 2010c).
POACEAE	**GRASS FAMILY**				
Orcuttia californica California Orcutt grass	FE, CE, 1B, MSHCP	Annual herb; vernal pools; blooms April–August; elevation 50–2,200 feet.	No	Unlikely	There are no known occurrences in the project vicinity (State of California 2010c) and no suitable habitat is present.

CALIFORNIA NATIVE PLANT SOCIETY LIST
1B = Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.

SENSITIVITY CODES

FEDERAL CANDIDATES AND LISTED PLANTS
FE = Federally listed endangered
FT = Federally listed threatened

STATE LISTED PLANTS
CE = State listed endangered
CT = State listed threatened

COUNTY OF WESTERN RIVERSIDE
NE = Narrow endemic
MSHCP = Multiple Species Habitat Conservation Program covered species

TABLE 3.3-5
SENSITIVE WILDLIFE SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE STUDY AREA

Species	Status	Habitat/Comments	Occurrence
FAIRY SHRIMP (Nomenclature from Eriksen and Belk 1999)			
ANOSTRACANS	**FAIRY SHRIMP**		
Vernal pool fairy shrimp *Branchinecta lynchi*	FT, MSHCP	Vernal pools.	This species is not expected to occur. No suitable vernal pool habitat is present.
Riverside fairy shrimp *Streptocephalus woottoni*	FE, MSHCP, *	Vernal pools.	This species is not expected to occur. No suitable vernal pool habitat is present.
REPTILES (Nomenclature from Crother 2001 and Crother et al. 2003)			
TEIIDAE	**WHIPTAIL LIZARDS**		
Belding's orange-throated whiptail *Aspidoscelis hyperythra beldingi*	CSC, *	Chaparral, coastal sage scrub with coarse sandy soils and scattered brush.	This species was not observed within the survey area; however, there is potential for this species to use the coastal sage scrub within the eastern survey area.
BIRDS (Nomenclature from American Ornithologists' Union 1998, 7th ed. and Unitt 2004)			
ACCIPITRIDAE HAWKS, KITES, & EAGLES			
Cooper's hawk (nesting) *Accipiter cooperi*	CSC, MSCP	Mature forest, open woodlands, wood edges, river groves. Parks and residential areas. Migrant and winter visitor.	This species has a moderate potential to occur within the western survey area due to the presence of mature trees which are suitable for nesting.
STRIGIDAE	**TYPICAL OWLS**		
Western burrowing owl (burrow sites & some wintering sites) *Athene cunicularia hypugaea*	FSS, BCC, CSC, MSHCP	Grassland, agricultural land, coastal dunes. Require rodent burrows. Declining resident.	Western burrowing owl is not expected to occur within the survey area due to the absence of suitable burrow habitat.
TYRANNIDAE	**TYRANT FLYCATCHERS**		
Southwestern willow flycatcher (nesting) *Empidonax traillii extimus*	FE, SE, MSHCP, *	Nesting restricted to willow thickets. Also occupies other woodlands. Uncommon migrant. Extremely localized breeding in the San Luis Rey, Santa Margarita, and Tijuana Rivers.	This species is not expected to occur. This species requires dense, multi-tiered riparian habitat, which is not present within the survey areas.

TABLE 3.3-5
SENSITIVE WILDLIFE SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE STUDY AREA
(continued)

Species	Status	Habitat/Comments	Occurrence
VIREONIDAE	**VIREOS**		
Least Bell's vireo (nesting) *Vireo bellii pusillus*	FE, SE, BCC, MSHCP~~,~~*	Willow riparian woodlands. Migrant and summer resident.	There is moderate-high potential for least Bell's vireo to occur within the eastern survey as suitable riparian habitat is present. This species has been observed within one-mile of the survey area (State of California 2010b)
SYLVIIDAE	**GNATCATCHERS**		
Coastal California gnatcatcher *Polioptila californica californica*	FT, CSC, MSHCP~~,~~ *	Coastal sage scrub, maritime succulent scrub. Resident.	This species has a moderate potential to occur in the Riversidian age scrub east within the eastern portion of the survey area. This species has been observed within one mile of the eastern and western survey areas (State of California 2010b)
MAMMALS (Nomenclature from Baker et al. 2003 and Hall 1981)			
HETEROMYIDAE	**POCKET MICE & KANGAROO RATS**		
San Bernardino kangaroo rat *Dipodomys merriami parvus*	FE, ST, MSHCP	Open coastal sage scrub, Riversidean alluvian fan sage scrub, or grasslands; fine, alluvial sands.	San Bernardino kangaroo rat is not expected to occur. No suitable soils or habitats are present within the survey areas. This species has been observed within one-mile of the survey area (State of California 2010b).
Stephens' kangaroo rat *Dipodomys stephensi*	FE, ST, MSHCP	Open coastal sage scrub or grassland.	This species is not expected to occur as suitable habitat is not present within the survey areas. This species has been observed within one-mile of the eastern survey area and two-miles within the western survey area (State of California 2010b).

TABLE 3.3-5
SENSITIVE WILDLIFE SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE STUDY AREA
(continued)

Species	Status	Habitat/Comments	Occurrence
Northwestern San Diego pocket mouse *Chaetodipus fallax fallax*	CSC	Sparse, disturbed coastal sage scrub or grasslands with sandy soils.	There is low potential for Northwestern San Diego pocket mouse to occur within the sparse Riversidian sage scrub within the western portion of the eastern survey area, but was not observed. This species has been known to occur within two-miles of the western survey area (State of California 2010b).
Pocketed free-tailed bat *Nyctinomops femorosaccus*	CSC	Normally roost in crevice in rocks, slopes, cliffs. Leave roosts well after dark.	This species has a low potential to occur within the survey area due to the lack of appropriate roosting habitat. This species has been known to occur within two-miles of the western survey area (State of California 2010b).

FEDERAL/STATE LISTED

FE = Federally listed endangered
FSS = Federal (BLM and USFS) sensitive species
FT = Federally listed threatened
FD = Federally delisted, species monitored for five years after delisting
SE = State listed endangered
ST = State listed threatened

OTHER

BCC = U.S. Fish and Wildlife Service Birds of Conservation Concern species
BEPA = Bald and Golden Eagle Protection Act
CFP = California Department of Fish and Game fully protected species
CSC = California Department of Fish and Game species of special concern
MSHCP = County of Western Riverside Multiple Species Habitat Conservation Program covered species
* = Taxa listed with an asterisk fall into one or more of the following categories:

- Taxa considered endangered or rare under Section 15380(d) of CEQA guidelines
- Taxa that are biologically rare, very restricted in distribution, or declining throughout their range
- Population(s) in California that may be peripheral to the major portion of a taxon's range, but which are threatened with extirpation within California
- Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands)

In accordance with MSHCP requirements, a habitat assessment was conducted for western burrowing owl (*Athene cunicularia hypugaea*); however, suitable western burrowing owl habitat is not present within the three survey areas given the lack of open habitat that provides foraging opportunities and soft, sandy soil that allows for burrowing. Therefore, a focused survey is not required.

Per Section 6.1.2 of the MSHCP, protection of riparian/riverine and vernal pool areas is important to conservation of special status species (see Appendix D-3 [DBESP] for full list of these species). Focused surveys are required for the least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), and fairy shrimp species (i.e., Riverside [*Streptocephalus woottoni*], Santa Rosa Plateau (*Linderiella santarosae*), and vernal pool [*Branchinecta lynchi*] fairy shrimp) if suitable habitat is present on-site and an avoidance alternative is not feasible. There is no suitable habitat for southwestern willow flycatcher, western yellow-billed cuckoo, or fairy shrimp species (Riverside, Santa Rosa Plateau, and vernal pool fairy shrimp) within the three survey areas. Suitable habitat for the least Bell's vireo is present within the Alessandro Arroyo Survey Area, and in 2005, this species was recorded within 0.7 mile of the Alessandro Arroyo (State of California 2010). Therefore, focused surveys for the least Bell's vireo were conducted. This species was not detected during the surveys (see Appendix D, Biological Technical Report, for full survey results).

In accordance with MSHCP requirements, focused surveys for the coastal California gnatcatcher (*Polioptila californica californica*) are not required in the three survey areas, and therefore, none were conducted. Although coastal California gnatcatcher was not detected during the general surveys, there is suitable nesting habitat within the Riversidean sage scrub and USFWS designated Critical Habitat for this species in the Eastern and Alessandro Arroyo Survey Areas (see Figure 3.3-2).

In accordance with the Stephens' Kangaroo Rat HCP requirements, focused surveys for Stephens' kangaroo rat are not required in the three survey areas, and none were conducted (RCHCA 1996). Suitable habitat for the Stephens' kangaroo rat was detected in the Eastern Survey Area, where there is sparse Riversidean sage scrub with loose soils.

There is potential for raptors to nest in mature willow and eucalyptus trees in the Alessandro Arroyo and Western Survey Areas and within the non-native grassland within the Western Survey Area during the nesting season (February 1 to August 30).

b. Jurisdictional and Riparian Assessment

Jurisdictional delineations were conducted to determine specific jurisdictional classifications (non-wetland waters, wetlands, etc.) in the study area. Results of these

delineations are summarized in Appendix D-2. Table 3.3-6 summarizes the jurisdictional resources present within the study area.

TABLE 3.3-6
JURISDICTIONAL RESOURCES WITHIN THE SURVEY AREAS (acres)

Jurisdictional Waters	Eastern Survey Area	Arroyo Survey Area	Western Survey Area
ACOE			
Wetlands	0.06	0.93	0.00
Non-wetland jurisdictional waters of the U.S.	0.05	0.01	0.19
Total ACOE	**0.11**	**0.94**	**0.19**
CDFG[1]			
Wetland	0.26	1.77	0.00
Streambed	0.05	0.01	0.19
Total CDFG	**0.31**	**1.78**	**0.19**
RWQCB	**0.31**	**1.78**	**0.19**

[1]CDFG area of jurisdiction includes all ACOE jurisdictional waters

ACOE Jurisdiction Waters of the U.S.

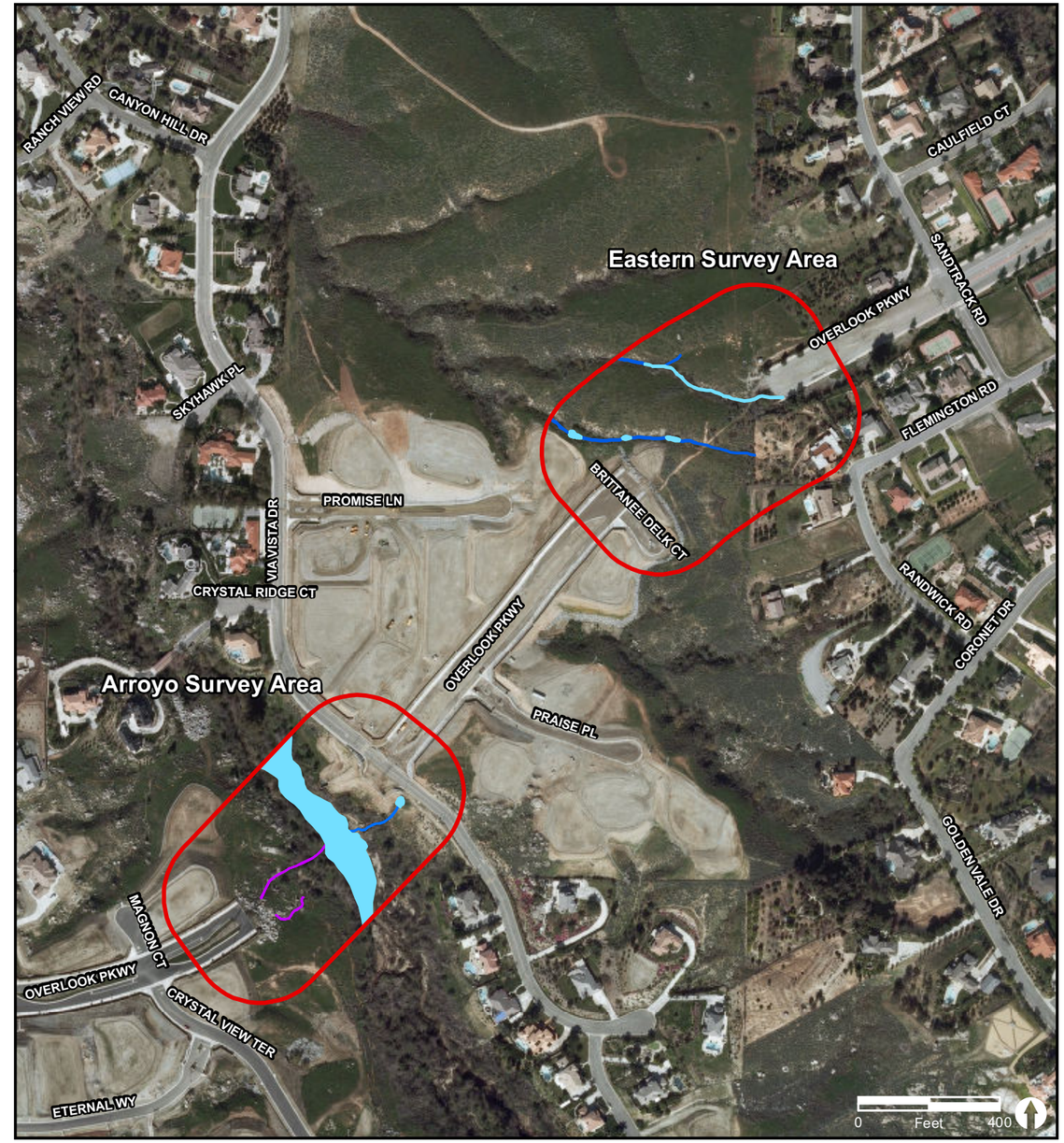
As detailed in Section 3.3.1.1, ACOE is the primary agency involved in wetland regulation. Wetlands and non-wetland jurisdictional waters of the U.S. are considered sensitive. According to ACOE, positive indicators for all three parameters (hydrophytic vegetation, hydric soils, and wetland hydrology) must be present to qualify as a wetland. ACOE also requires the delineation of non-wetland jurisdictional waters. These waters must have strong hydrology indicators, such as the presence of seasonal flows and an ordinary high water mark.

ACOE jurisdiction area within the Eastern Survey Area totals 0.11 acre, which includes 0.06 acre of ACOE wetlands and 0.05 acre of ACOE non-wetland waters of the U.S. Non-wetland waters within the survey area are located within the southern drainage (Figure 3.3-4).

ACOE jurisdiction area within the Alessandro Arroyo Survey Area totals 0.94 acre, which includes 0.93 acre of ACOE wetlands and 0.01 acre of ACOE non-wetland waters of the U.S. Non-wetland waters within the survey area are composed of the unvegetated channel of an unnamed drainage on the east canyon slope of the survey area (see Figure 3.3-4).

The Gage Canal is an unvegetated irrigation channel in the Western Survey Area. Due to the direct hydrologic connectivity of the Gage Canal to the Santa Ana River (a traditional navigable waterway), it is considered within the jurisdictional resources. The ACOE jurisdiction area within the Western Survey Area totals 0.19 acre of ACOE non-wetland waters of the U.S. (see Figure 3.3-4).

Impage Source: City of Riverside, 2009



Study Area
ACOE Non-wetland Waters of the US
ACOE Wetlands
Erosive Features

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FIGURE 3.3-4

ACOE Jurisdictional Resources

CDFG Jurisdiction Waters of the State

All streambeds and associated wetlands are also considered sensitive, and are under the jurisdiction of CDFG (see Section 3.3.1.1). CDFG jurisdictional areas extend to either the outer edge of riparian vegetation or to the top of the bank of streams or lakes, whichever is wider.

A total of 0.31 acre of CDFG jurisdictional areas occur within the Eastern Survey Area, which includes 0.05 acre of CDFG streambed and 0.26 acre of CDFG wetland (Figure 3.3-5). This acreage consists of the southern willow scrub and riparian habitat associated with the northern drainage within the survey area. Within the survey area, CDFG streambed is equal to ACOE non-wetland waters. CDFG riparian includes all riparian habitat within the survey area in addition to ACOE wetlands.

A total of 1.78 acres of CDFG jurisdictional areas occur within the Alessandro Arroyo Survey Area, which includes 0.01 acre of CDFG streambed and 1.77 acre of CDFG riparian (see Figure 3.3-5). This acreage consists of riparian habitat associated with the Alessandro Arroyo within the survey area. Within the survey area, CDFG streambed is equal to ACOE non-wetland waters. CDFG riparian includes all riparian habitat within the survey area in addition to ACOE wetlands.

As stated above, due to the direct hydrologic connectivity of the Gage Canal to a traditional navigable waterway, the CDFG jurisdictional areas within the Western Survey Area total 0.19 acre of CDFG streambed (see Figure 3.3-5).

RWQCB Jurisdiction Resources

The RWQCB takes jurisdiction over all waters of the state and all waters of the U.S., as mandated by both the Clean Water Act and the Porter-Cologne Act (see Section 3.3.1 above). A total of 0.31, 1.78, and 0.19 acres are within the RWQCB jurisdiction at the Eastern, Alessandro Arroyo, and Western Survey Areas, respectively (Figure 3.3-6).

Erosive Features

There are two significant erosive features present within the Alessandro Arroyo Survey Area. Both features drain runoff from Overlook Parkway (see Figure 3.3-4). Runoff flows east from Overlook Parkway through riprap at the base of the road and has cut large rills into the surrounding soil. These two large rills eventually drain into the Alessandro Arroyo. As these rills drain to developed and upland habitat, and do not contain significant wetland vegetation, they are considered exempt from ACOE, CDFG, and RWCQB jurisdiction.

MSCHP Riparian/Riverine Jurisdictional Resources

Per the Western Riverside County MSHCP Section 6.1.2, the study area was assessed for riparian/riverine areas, vernal pools, and fairy shrimp, including Riverside fairy shrimp, vernal pool fairy shrimp, and Santa Rosa Plateau fairy shrimp. MSHCP Section 6.1.2 describes the process through which protection of riparian/riverine areas, vernal pools, and listed fairy shrimp species should occur within the MSHCP Plan Area.

No vernal pools or fairy shrimp occur within the survey areas. MSHCP riparian/riverine areas include:

> . . . lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year.

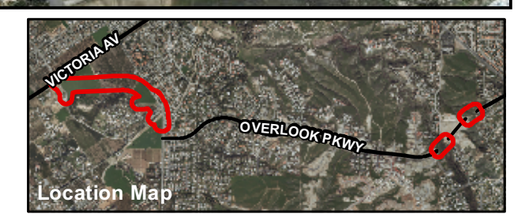
Figure 3.3-7 shows the MSHCP riparian/riverine jurisdictional resources within the study area. A total of 2.02 acres of southern willow scrub, a riparian/riverine area, occurs within the study area, including 0.25 acre within the Eastern Survey Area and 1.77 acres within Alessandro Arroyo Survey Area. Approximately 0.01 acre of freshwater marsh habitat, a riparian/riverine area, occurs at the northwestern corner of the Eastern Survey Area. Several unvegetated drainages, totaling 0.05 acre, occur within the Eastern and Alessandro Arroyo Survey Areas. The drainages are considered riparian/riverine areas as they connect downstream with the Santa Ana River.

Artificially created wetlands, such as those created for the purpose of providing wetland habitat or resulting from human actions or from the alteration of natural stream courses, are not considered riparian/riverine areas. Thus, the Gage Canal in the Western Survey Area is not considered a MSCHP riparian/riverine area.

c. Wildlife Movement Corridors

Wildlife movement corridors and habitat linkages are areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Corridors are generally local pathways connecting short distances usually covering one or two main types of vegetation communities. Linkages are landscape-level connections between very large core areas and generally span several thousand feet and cover multiple habitat types. The habitat connectivity provided by corridors and linkages is important in providing access to mates, food, and water, allowing the dispersal of individuals away from high population density areas and facilitating the exchange of genetic traits between populations (Beier and Loe 1992).

Image Source: City of Riverside, 2009



Study Area
CDFG Wetland
CDFG Streambed

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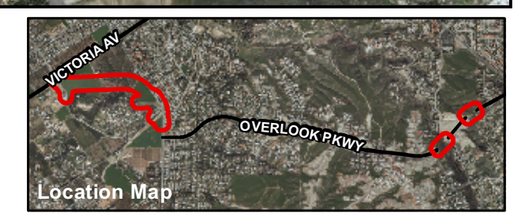
FIGURE 3.3-5

CDFG Jurisdictional Resources

Image Source: City of Riverside, 2009



Study Area
RWQCB Waters of the State

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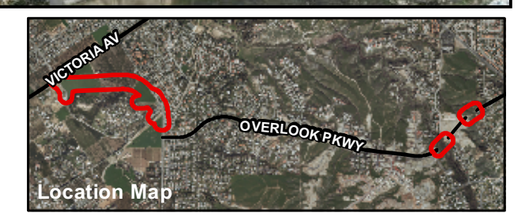
FIGURE 3.3-6

RWQCB Jurisdictional Resources

Image Source: City of Riverside, 2009



Study Area
MSHCP Riparian/Riverine

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FIGURE 3.3-7

MSHCP Riparian/Riverine Jurisdictional Resources

3.3.3 Significance Determination Thresholds

Based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines, impacts related to biological resources would be significant if the Project would:

1. Have a substantial adverse effect on a listed species, a candidate for state listing, or a federal or state fully protected species;

2. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; or have a substantial adverse effect on a riparian or other special status community;

3. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, impede the use of native wildlife nursery sites, or obstruct genetic flow for identified planning species;

4. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or

5. Conflict with the provisions of the MSHCP, Stephens' Kangaroo Rat HCP, or other approved conservation plan that applies to the Project vicinity or adjacent lands.

Significance criteria for the analysis were established based on a combination of two considerations:

- Effects on biological resources that would trigger mandatory findings of significance as specified in Appendix G of the State CEQA Guidelines, and

- Effects on biological resources that would be inconsistent with the terms and conditions of the MSHCP and Stephens' Kangaroo Rat HCP.

The CEQA mandatory finding of significance applies if the proposed Project has the potential to:

- 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; and/or

- Substantially reduce the number or restrict the range of an endangered species.

Effects that would be inconsistent with the terms and conditions of the MSHCP or Stephens' Kangaroo Rat HCP also are considered potentially significant because such effects would interfere with or preclude the implementation of the conservation plans that cover potentially affected habitats and species in the study area. Implementation of the MSHCP and Stephens' Kangaroo Rat HCP is the primary means for avoiding, reducing, and mitigating potentially significant effects of a project on biological resources because the MSHCP and Stephens' Kangaroo Rat HCP are approved conservation plans as specified in Section 15065 of State CEQA Guidelines (i.e., the plans):

- Are being implemented by the City and other agencies in the study area;
- Have been approved by USFWS and CDFG;
- Have been analyzed in environmental impact reports; and
- Preserve, restore, or enhance sufficient habitat to mitigate a reduction in habitat and number of the affected species to below a level of significance.

The MSHCP and Stephens' Kangaroo Rat HCP have been analyzed under CEQA. Compliance with these plans fully mitigate for impacts on covered species.

3.3.4 Issue 1: Special Status Species

Would the proposed Project have a substantial adverse effect on a listed species, a candidate for state listing, or a federal or state fully protected species?

3.3.4.1 Impact Analysis

Scenario 1

Under Scenario 1, both Crystal View Terrace and Green Orchard Place gates would remain in place and be closed until Overlook Parkway is connected across the Alessandro Arroyo and to Alessandro Boulevard. This potential connection is not a part of this scenario. No construction or ground-disturbing activities would occur under Scenario 1. **No impact** would occur.

Scenario 2

Under Scenario 2, the gates at both Crystal View Terrace and Green Orchard Place would be removed, and there would be no connection of Overlook Parkway across the Alessandro Arroyo and to Alessandro Boulevard. Like Scenario 1, no construction would occur under Scenario 2, as the removal of the gates does not involve major construction equipment. **No impact** would occur.

Scenario 3

Under Scenario 3, the gates at Crystal View Terrace and Green Orchard Place would be removed and Overlook Parkway would be connected across the Alessandro Arroyo and to Alessandro Boulevard through construction of a fill crossing and a bridge. In conjunction with construction of the roadway segments, storm drains, water lines, and gas and electric power lines would be extended to tie into existing lines. Temporary construction activities would occur within a construction easement on either side of the proposed roadways. Construction staging would be accommodated primarily on Overlook Parkway and other existing roadways. Therefore, implementation of Scenario 3 has the potential to directly or indirectly impact special status plant and wildlife species.

The mitigation of impacts to Covered Species from the development of a site occurs through consistency with the MSHCP. If a project is consistent with the MSHCP, and complies with the survey requirements of the MSHCP, impacts to Covered Species that could occur as a result of the development of the site are mitigated through the MSHCP.

Graceful tarplant, a MSHCP Group 2 species and a CNPS List 4 species, was observed in low numbers and scattered within the Riversidean sage scrub within the Eastern Survey Area. However, the Eastern and Alessandro Arroyo Survey Areas associated with this scenario are not intended to be part of the MSHCP Conservation Area (i.e., not located in a Criteria Cell), and are therefore not designated for protection within a preserve. In addition, this scenario complies with the survey requirements of the MSHCP. Thus, potential impacts to graceful tarplant are mitigated through compliance with the MSHCP. Impacts to special status plant species would be **less than significant**.

This scenario has the potential to impact a protected species—Belding's orange-throated whiptail—that was observed during surveys. This scenario also has the potential to affect three listed species—Stephens' kangaroo rat, coastal California gnatcatcher, and least Bell's vireo—that have not been observed during surveys, but which may occur in suitable habitat in and adjacent to the survey areas associated with this scenario. Lastly, this scenario has the potential to impact migratory birds and nesting raptors.

Although there is suitable habitat to support Stephens' kangaroo rat, no Stephens' kangaroo rats, sign, or burrows were detected during the general survey. Therefore, **no impact** to this species would occur. Conformance with the Stephens' kangaroo rat HCP and impacts in relation to the Stephens' kangaroo rat fee area is discussed below in Section 3.3.8, Conservation Plans.

Impacts to the Belding's orange-throated whiptail could result from vegetation clearing, grubbing, grading, and construction in disturbed Riversidean sage scrub and Riversidean sage scrub, which provides suitable habitat for this species. This species is

widespread within suitable habitat throughout the City, and these impacts would occur to a relatively small amount of habitat compared to the amount of Riversidean sage scrub in the surrounding area. Furthermore, the Eastern and Alessandro Arroyo Survey Areas associated with this scenario are not intended to be part of the MSHCP Conservation Area (i.e., not located in a Criteria Cell), and this scenario complies with the survey requirements of the MSHCP. Thus, potential impacts to Belding's orange-throated whiptail are mitigated through compliance with the MSHCP. Impacts would be **less than significant**.

However, as detailed below, impacts to coastal California gnatcatcher, least Bell's vireo, raptors, and migratory birds would be **significant** (**S3-BIO-1**).

- Coastal California gnatcatcher - Although coastal California gnatcatcher was not detected during the general surveys, there is suitable nesting habitat within the Riversidean sage scrub, and USFWS designated Critical Habitat for this species is present within the Eastern and Alessandro Arroyo Survey Areas. The area proposed for construction of the fill crossing and bridge associated with this scenario are not intended to be part of the MSHCP Conservation Area (i.e., not located in a Criteria Cell), and this scenario complies with the survey requirements of the MSHCP. Potential indirect impacts to coastal California gnatcatcher are mitigated through compliance with the MSHCP. However, construction activities during the breeding season have the potential to directly impact all nesting birds, including the coastal California gnatcatcher.

- Least Bell's vireo - In accordance with MSHCP requirements, because suitable riparian habit is present, focused surveys for the least Bell's vireo were conducted within the Alessandro Arroyo Survey Area. This species was not detected during the surveys; however, there is potential for this species to nest within the riparian/riverine habitat due to the presence of suitable southern willow scrub vegetation. No occupied least Bell's vireo habitat exists within the PIA; however, construction activities are proposed within southern willow scrub that could impact least Bell's vireo riparian habitat. Construction activities during the breeding season have the potential to directly impact all nesting birds, including least Bell's vireo.

- Raptors and Migratory Birds - There is potential for raptors to nest in mature willow and eucalyptus trees in the Alessandro Arroyo Survey Area during the nesting season of February 1 to August 30. In addition, construction activities, such as grubbing and grading, may result in the take of migratory bird species if construction is conducted during the breeding season of most bird species. Migratory bird species include special status species that may nest on-site.

Scenario 4

Under Scenario 4, both Crystal View Terrace and Green Orchard Place gates would be removed and Overlook Parkway would be connected east across the Alessandro Arroyo and to Alessandro Boulevard as described above for Scenario 3. Impacts to special status species in the Eastern and Alessandro Arroyo Survey Areas would be the same as those discussed above (see Section 3.3.4.1c). Thus, impacts to coastal California gnatcatcher, least Bell's vireo, raptors, and migratory birds would be **significant** (**S4-BIO-1**). In addition, the Proposed C Street would be constructed. The area that would be affected by construction of the Proposed C Street is discussed below.

No special status plant species were observed or have the potential to occur in the Western Survey Area. Therefore, no impacts are expected to occur. However, impacts to Lincoln's sparrow, raptors, and migratory birds during construction of the Proposed C Street would be **significant** (**S4-BIO-1**).

- Lincoln's sparrow - , a MSHCP-covered species during the breeding season, was observed in the winter foraging in the non-native grassland within the Western Survey Area. This observation occurred outside its breeding season. Lincoln sparrow is frequently observed outside of its breeding season. Impacts would only occur if this species is present within the breeding season. Construction activities during the breeding season have the potential to directly impact all nesting birds.

- Raptors and Migratory Birds - There is potential for raptors to nest in mature willow and eucalyptus trees, and the non-native grassland in the Western Survey Area during the nesting season of February 1 to August 30. . Construction activities, such as grubbing and grading, may result in the take of migratory bird species if construction is conducted during the breeding season of most bird species within the Western Survey Area. .

Off-site

The Traffic Impact Analysis (TIA) prepared for the proposed Project identifies measures to mitigate potentially significant traffic impacts within the Project vicinity. Measures consist of improvements such as adding stop signs or traffic signals, changing traffic signal operations, and adding new turn lanes at intersections. These activities could involve installation of poles, roadway restriping, and minor repaving. As the affected intersections are in operation, they have been previously disturbed, and off-site measures would therefore not have a substantial adverse effect on special status species. **No impact** would occur.

3.3.4.2 Significance of Impacts

No construction or ground-disturbing activities would occur under Scenarios 1 or 2; therefore, no impact would occur.

Scenarios 3 and 4 have the potential to impact coastal California gnatcatcher and least Bell's vireo. In addition, Scenario 4 has the potential to impact Lincoln's sparrow. Impacts to nesting migratory birds and raptors under both scenarios would be significant (**S3-BIO-1** and **S4-BIO-1**), and thus require mitigation. Impacts associated with the urbanization and development of a project site are addressed through consistency with the MSHCP. If a project can be found to be consistent with the MSHCP, since it is not intended to be part of the MSHCP Reserve (i.e., not located in a Criteria Cell), and complies with the survey requirements of the MSHCP, any biological impacts that could occur as a result of the development of the site are mitigated through the MSHCP. Therefore, potential impacts to graceful tarplant and Belding's orange-throated whiptail from Scenarios 3 are addressed through compliance with the MSHCP, and impacts would be less than significant.

No impacts would occur from implementation of off-site improvements.

3.3.4.3 Mitigation, Monitoring, and Reporting

The following would be required to reduce impacts during the breeding season from construction associated with the fill crossing and bridge for Scenarios 3 and 4 and the Proposed C Street in Scenario 4 (**S3-BIO-1** and **S4-BIO-1**):

MM-BIO-1: In accordance with the MBTA, CDFG Code 3503, and the MSHCP, no direct impacts shall occur to any nesting birds, their eggs, chicks, or nests during their breeding seasons (including coastal California gnatcatcher, least Bell's vireo, raptors, and other migratory birds). Construction shall be conducted outside the breeding season of February 1–September 15. If construction activities must occur during the combined bird-breeding season, the following steps shall apply:

Prior to the issuance of a grading permit, a qualified biologist shall conduct a pre-construction clearance survey for nesting birds in suitable nesting habitat within the proposed area of impact. Pre-construction nesting surveys will identify any active migratory birds (and other sensitive non-migratory birds) nests. Although there is no formal established protocol for nest avoidance, avoidance buffers of 500 feet for raptors/owls, and 100 to 300 feet for songbirds, shall be established, with exact distances for each site to be determined by a qualified biologist. However, avoidance buffers for ground nesting raptor species shall be larger than 500 feet. The construction setback for one species, northern

harrier (*Circus cyaneus hudsonius*), shall include the conservation of habitat within an 820-foot (250-meter) radius around any active nest site locations. If bird nests are present, appropriate construction limits setback shall be maintained until the young are completely independent of the nest. With the implementation of this mitigation measure, direct impacts to any active migratory bird nest would be avoided.

3.3.4.4 Significance after Mitigation

Implementation of Mitigation Measure **MM-BIO-1** would reduce all potentially significant impacts to less than significant.

3.3.5 Issue 2: Riparian/Wetland Communities

Would the Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; or have a substantial adverse effect on a riparian or other special status community?

3.3.5.1 Impact Analysis

Scenario 1

No construction or ground-disturbing activities would occur under Scenario 1. **No impact** would occur.

Scenario 2

No construction would occur under Scenario 2, as the removal of the gates does not involve major construction equipment. **No impact** would occur.

Scenario 3

The construction and subsequent operation of a fill crossing has the potential to temporarily and permanently impact riparian and other special status communities.

Impacts to biological resources under this scenario are shown in Figure 3.3-8. As discussed above under the first threshold, impacts to Riversidean sage scrub, disturbed Riversidean sage scrub, disturbed land, ornamental vegetation, and developed land would be **less than significant**.

Impacts will occur to southern willow scrub due to grading activities and staging. Southern willow scrub is considered sensitive by local, state, and federal resource

agencies. Impacts to this vegetation community are considered significant and will require mitigation. Because it is a riparian vegetation community and wetland habitat, impacts to southern willow scrub would be **significant** (**S3-BIO-2**).

ACOE, CDFG, and RWQCB jurisdictional resources are regulated by the federal, state, and local governments under a no-net-loss policy, and all impacts are considered significant and need to be avoided to the greatest extent possible. A delineation was conducted to determine the presence and jurisdictional classifications (non-wetland waters, wetlands, etc.) of on-site jurisdictional resources. Tables 3.3-7a and 3.3-7b summarize temporary and permanent impacts to ACOE and CDFG/RWQCB jurisdictional resources from Scenario 3. Impacts to jurisdictional resources are shown in Figures 3.3-9 through 3.3-12. A culvert is proposed under the road for the fill crossing to allow for continued drainage. Additionally, the bridge has been designed to minimize impacts to jurisdictional resources in the arroyo. However, temporary and permanent impacts to jurisdictional resources from construction of the fill crossing and bridge would be **significant** (**S3-BIO-2**).

Impage Source: City of Riverside, 2009

0 Feet 400

Study Area
Permanent Impacts
Temporary Impacts
Shading Impacts

Vegetation Communities

Developed
Disturbed
Disturbed Riversidian Sage Scrub
Fresh Water Marsh
Ornamental
Riversidian Sage Scrub
Southern Willow Scrub

FIGURE 3.3-8
Eastern and Arroyo Survey Areas
Impacts to Biological Resources

RECON

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Impage Source: City of Riverside, 2009

Study Area
Permanent Impacts
Temporary Impacts
Shading Impacts
ACOE Non-wetland Waters of the US
ACOE Wetlands
Erosive Features

FIGURE 3.3-9
Eastern and Arroyo Survey Areas
Impacts to ACOE Jurisdictional Resources

RECON

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Impage Source: City of Riverside, 2009

Study Area
Permanent Impacts
Temporary Impacts
Shading Impacts
CDFG Wetland
CDFG Streambed

FIGURE 3.3-10
Eastern and Arroyo Survey Areas
Impacts to CDFG Jurisdictional Resources

RECON

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Impage Source: City of Riverside, 2009

0 Feet 400

Study Area
Permanent Impacts
Temporary Impacts
Shading Impacts
RWQCB

FIGURE 3.3-11
Eastern and Arroyo Survey Areas
Impacts to RWQCB Jurisdictional Resources

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Impage Source: City of Riverside, 2009

Study Area
Permanent Impacts
Temporary Impacts
Shading Impacts
MSHCP Riparian/Riverine

0 Feet 400

FIGURE 3.3-12

Eastern and Arroyo Survey Areas
Impacts to MSHCP Riparian/Riverine
Jurisdictional Resources

RECON

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TABLE 3.3-7a
IMPACTS TO JURISDICTIONAL RESOURCES IN THE EASTERN SURVEY AREA (acres)

Jurisdictional Resources	Existing Jurisdictional Resources	Temporary Impacts*	Permanent Impacts
ACOE			
Wetland	0.06	0.00	0.03
Non-wetland waters	0.05	0.00	0.02
Total ACOE	**0.11**	**0.00**	**0.05**
CDFG/RWQCB			
Wetland	0.26	0.02	0.13
Streambed	0.05	0.00	0.02
Total CDFG/RWQCB	**0.31**	**0.02**	**0.15**

*Temporarily impacted areas will be restored at a 1:1 ratio to pre-construction conditions where possible.

TABLE 3.3-7b
IMPACTS TO JURISDICTIONAL RESOURCES IN THE ALESSANDRO ARROYO SURVEY AREA (acres)

Jurisdictional Resources	Existing Jurisdictional Resources	Temporary Impacts*	Permanent Impacts
ACOE			
Wetland	0.93	0.31	0.00
Non-wetland waters	0.01	<0.01 (76 sf)	0.00
Erosive feature	0.00	<0.01 (327 sf)	0.00
Total ACOE	**0.94**	**0.32**	**0.00**
CDFG/RWQCB			
Wetland	1.77	0.76	<0.01 (77 sf)
Streambed	0.01	<0.01 (76 sf)	0.00
Total CDFG/RWQCB	**1.78**	**0.76**	**<0.01 (77 sf)**

*Temporarily impacted areas will be restored at a 1:1 ratio to pre-construction conditions where possible.

sf = square feet

Because riparian/riverine resources are present that would be affected by this scenario, a DBESP was prepared in accordance with Section 6.1.2 of the MSHCP. The DBESP found that the riparian/riverine areas (southern willow scrub, freshwater marsh, and the unvegetated drainages) are heavily constrained by development, and no riparian/riverine animal species were detected. Only one sensitive species, graceful tarplant, was detected, but it was not located in an area meeting the definition of riparian/riverine areas. Potential indirect impacts, including noise impacts to riparian/riverine species and urban runoff, are not expected to occur as a result of implementation of this scenario. Noise impacts to riparian/riverine species would not occur because such species were not detected in the survey area. Impacts from urban runoff would be minimized by implementation of construction Best Management Practices (BMPs) as part of a Storm Water Pollution Prevention Plan (SWPPP) (see Section 3.5, Drainage/Hydrology/Water Quality).

The DBESP, prepared in May 2012, was circulated to the resource agencies for a 60-day review. Therefore, notification requirements to the wildlife agencies set forth under Section 6.1.2 of the MSHCP have been fulfilled.

Scenario 4

As Scenario 4 also involves the connection of Overlook Parkway, impacts discussed above would also apply: temporary and permanent impacts to wetland habitat and jurisdictional resources from the construction of a fill crossing and a roadway bridge would be **significant** (**S4-BIO-2**) (see Figures 3.3-8 through 3.3-12; Tables 3.3-7a and 3.3-7b). Impacts to biological resources under this scenario would also include areas affected by construction of the Proposed C Street as shown in Figure 3.3-13. Under the guidelines of the MSHCP, impacts to non-native grassland, disturbed land, active agricultural land, orchard, ornamental vegetation, and developed land in the Western Survey Area would be **less than significant** and would not require mitigation.

In addition, construction of the Proposed C Street would also temporarily and permanently impact the Gage Canal, which is considered an ACOE non-wetland water and a CDFG/RWQCB streambed due to its hydrologic connectivity to the Santa Ana River. Impacts to jurisdictional resources are detailed in Table 3.3-8, and shown in Figures 3.3-14 through 3.3-16.

TABLE 3.3-8
IMPACTS TO JURISDICTIONAL RESOURCES IN THE WESTERN SURVEY AREA (acres)

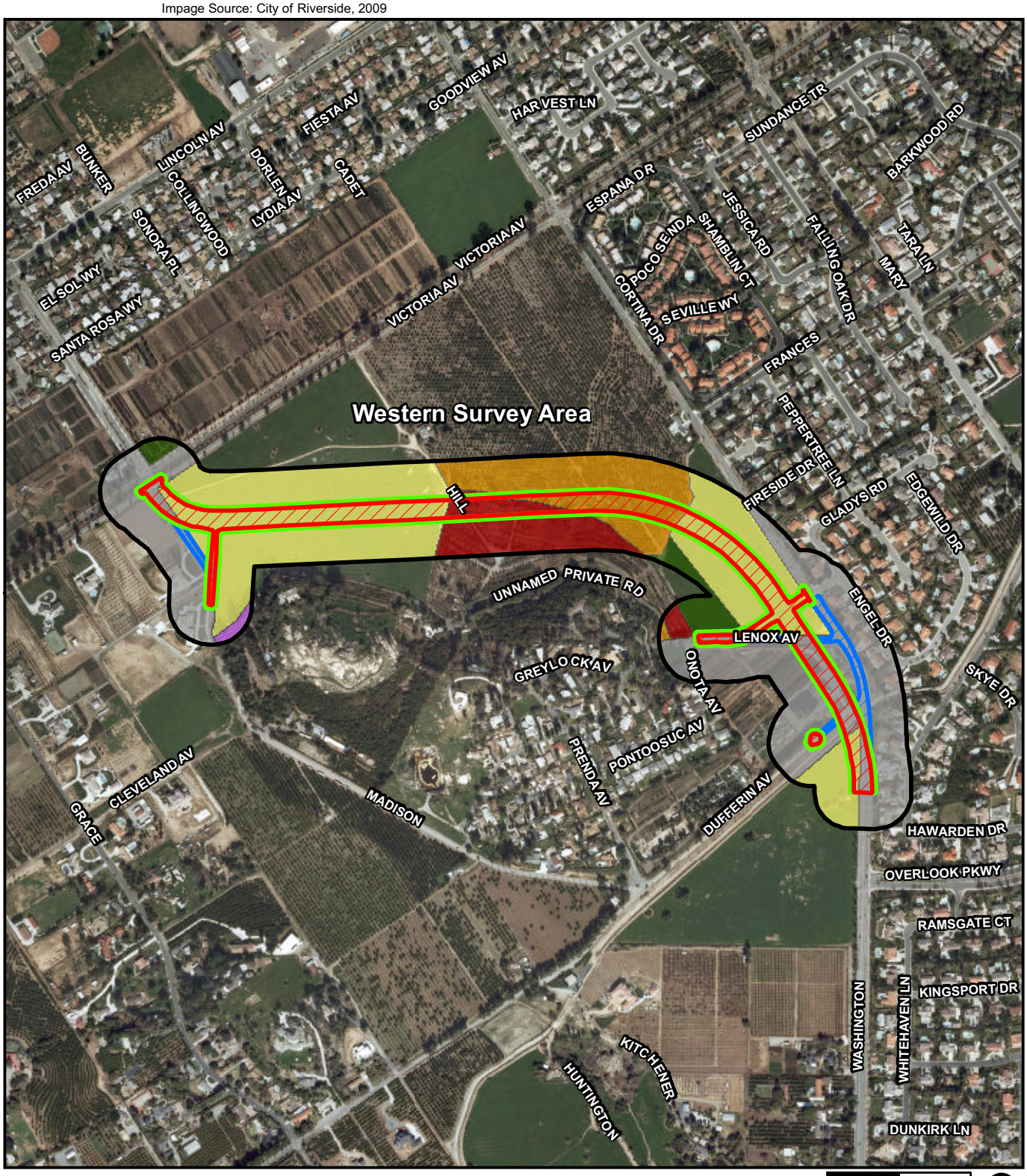
Jurisdictional Resources	Existing Jurisdictional Resources	Temporary Impacts*	Permanent Impacts
ACOE			
Wetland	0.00	0.00	0.00
Non-wetland waters	0.19	<0.01 (430 sf)	0.02
Total ACOE	**0.19**	**<0.01 (430 sf)**	**0.02**
CDFG/RWQCB			
Wetland	0.00	0.00	0.00
Streambed	0.19	<0.01 (430 sf)	0.02
Total CDFG/RWQCB	**0.19**	**<0.01 (430 sf)**	**0.02**

* Temporarily impacted areas will be restored at a 1:1 ratio to pre-construction conditions where possible.

sf = square feet

Although the Gage Canal has connectivity to the Santa Ana River, it is concrete-lined in the Project vicinity and does not contain vegetation. The portion of the canal proposed to be impacted by the Proposed C Street would be enclosed in a culvert under the road, similar to the facility for the Gage Canal that currently flows under Washington Street. In addition, the portion of the canal under the area proposed for a street vacation (existing Washington Street) would be daylighted. The Gage Canal, which conveys water to

Impage Source: City of Riverside, 2009



0 Feet 800

Study Area
Permanent Impacts
Temporary Impacts
Vacated Roads

Vegetation Communities

Non-native Grassland
Disturbed
Active Agricultural Field
Orchard
Ornamental
Developed

FIGURE 3.3-13

Western Survey Area
Impacts to Biological Resources

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Impage Source: City of Riverside, 2009

Study Area

Permanent Impacts

Temporary Impacts

Vacated Roads

Potential ACOE Non-wetland Waters of the US

FIGURE 3.3-14

Western Survey Area
Impacts to ACOE Jurisdictional Resources

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Impage Source: City of Riverside, 2009

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Study Area
Permanent Impacts
Temporary Impacts
Vacated Roads
CDFG Streambed

FIGURE 3.3-15

Western Survey Area
Impacts to CDFG Jurisdictional Resources

RECON

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Impage Source: City of Riverside, 2009

Study Area

Permanent Impacts

Temporary Impacts

Vacated Roads

RWQCB Waters of the State

FIGURE 3.3-16

Western Survey Area
Impacts to RWQCB Jurisdictional Resources

RECON

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agricultural fields, would remain intact, as the canal and water flow will not be permanently interrupted. The only changes proposed to the Canal are converting underground portions to be open and the open portion under the Proposed C Street to be culverted. This change would result in a no-net loss of the functions and values the canal provides; therefore, **no significant impact** would result.

Off-site

Off-site improvements such as stop signs, traffic signals, and new turn lanes at existing intersections are proposed in developed areas that do not support federally protected wetlands, riparian, or other special status communities. **No impact** would occur.

3.3.5.2 Significance of Impacts

No major construction or ground-disturbing activities would occur under Scenarios 1 and 2; thus, no impact to a wetland, riparian, or special status community would occur.

The construction and subsequent operation of a fill crossing and a roadway bridge for Scenarios 3 and 4 would temporarily and permanently impact southern willow scrub and jurisdictional resources. Temporary and permanent impacts to southern willow scrub and jurisdictional waters would be significant and require mitigation (**S3-BIO-2 and S4-BIO-2**).

No impacts would be associated with off-site improvements.

3.3.5.3 Mitigation, Monitoring, and Reporting

Mitigation requirements for the impacts to disturbance and removal of southern willow scrub and jurisdictional resources are summarized in Table 3.3-6 (**S3-BIO-2 and S4-BIO-2**). Authorized impacts to jurisdictional resources would require mitigation in the form of habitat creation, enhancement, or restoration or the purchase of off-site mitigation credits to achieve a no-net-loss of jurisdictional resources, as determined by a qualified restoration specialist in consultation with the regulatory agencies. All mitigation listed below for state and federal waters is subject to the approval of the regulatory agencies during the permitting process.

MM-BIO-2: To reduce impacts to southern willow scrub and jurisdictional resources to less than significant, the City shall provide 1.48 acres of wetland creation and restoration/enhancement of existing disturbed wetlands for impacts to ACOE and CDFG jurisdictional resources (see Table 3.3-6).

Temporary impacts to southern willow scrub and jurisdictional waters shall be mitigated on-site through restoration of the areas disturbed during construction at a 1:1 ratio.

Permanent impacts to southern willow scrub and jurisdictional waters require mitigation at a minimum 2:1 ratio through one of the following.

1. Creation of additional wetlands (e.g., southern willow scrub) and enhancement of existing wetlands containing southern willow scrub shall be implemented to meet the minimum 2:1 mitigation ratio for the permanent impacts to southern willow scrub wetlands. Creation and enhancement activities shall occur at a suitable location and restoration/enhancement of existing wetlands within the Alessandro Arroyo. A Wetland Mitigation Plan shall be prepared which identifies the location of creation/restoration and enhancement areas, methods involved to implement the mitigation effort, and maintenance and monitoring program which is required to ensure the success of the mitigation.

2. Provide compensation through the purchase of credits from an established wetland mitigation site within the same watershed, if available, for impacts that cannot be mitigated on-site.

Either of these mitigation options or a combination of on-site and off-site mitigation would reduce permanent impacts to southern willow scrub/wetlands to less than significant. With mitigation, the net effect of the Project on riparian/riverine areas would be equivalent or superior to the existing conditions.

3.3.5.4 Significance after Mitigation

Implementation of Mitigation Measure **MM-BIO-2** would reduce impacts from Scenarios 3 and 4 to less than significant.

3.3.6 Issue 3: Wildlife Corridors

Would the proposed Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, impede the use of native wildlife nursery sites, or obstruct genetic flow for identified planning species

3.3.6.1 Impact Analysis

Scenario 1

Under this scenario, the gates at Crystal View Terrace and Green Orchard Place would remain in place and be closed. No construction or ground-disturbing activities would

occur under Scenario 1. Green Orchard Place and Crystal View Terrace are within developed residential neighborhoods that do not function as a wildlife corridor. **No impact** would occur.

Scenario 2

Like Scenario 1, no construction would occur under Scenario 2, and no wildlife corridors would be affected by removal of the gates at Green Orchard Place and Crystal View Terrace. **No impact** would occur.

Scenario 3

The proposed connection for Overlook Parkway is within largely undeveloped tracts of land surrounded by residential development. Although not within a designated wildlife corridor or linkage area within the MSHCP, the arroyo can provide land for wildlife uses. However, the use is limited by developed features in the Project vicinity, including roadways. Within 0.5 mile to the north and south of Overlook Parkway is Alessandro Boulevard and Berry Road, respectively, which both act as barriers to further wildlife movement. The fill crossing and proposed grading within would result in loss of potential foraging and breeding habitat for some resident wildlife species and would interfere with connectivity to surrounding habitat. However, these construction activities will occur outside of an identified MSHCP Criteria Cell, Core, or Linkage, which means it is not an area that was envisioned to be preserved for biological resources.

Section 6.1.4 of the MSHCP addresses the need for certain projects to incorporate measures to address urban/wildland interfaces in or near the MSHCP Conservation Area. The Eastern and Alessandro Arroyo Survey Areas are located more than two miles from the nearest Criteria Cell and are not located within or next to any MSHCP Conservation Areas that would require the need for implementation of Urban/Wildland Interface Guidelines. Scenario 3 would not conflict with Section 6.1.4 of the MSHCP.

As stated in Section 3.3.1.3, major arroyos (such as the Alessandro Arroyo) are recognized by the General Plan 2025 for their functions and values to wildlife and wildlife movement. The Alessandro Arroyo is also classified as Open Space by the General Plan. In addition, the Riverside Land Conservancy manages conservation easements immediately south of Overlook Parkway within the Alessandro Arroyo. Wildlife moving within the Santa Ana River corridor could also move through the Alessandro Arroyo; however, the Alessandro Arroyo is culverted to the north and south, and ultimately the Alessandro Arroyo is restricted by residential development and paved roads in both directions. Movement for smaller mammals and wildlife is made possible through the culverts, while larger mammals could potentially cross smaller neighborhood streets; however, Trautwein Road is a wide arterial road. Additionally, wildlife is blocked from entering the Sycamore Canyon Wilderness Park to the northeast by East Alessandro

Boulevard, a heavily traveled road which bisects the undeveloped land to the south and the wilderness park to the north.

The bridge design spans the arroyo and has been designed at a height to minimize impacts through the Alessandro Arroyo. The proposed bridge crossing has been designed to minimize impacts to the Alessandro Arroyo. The abutments were located to also minimize permanent features in the arroyo, and the two piers that would extend into the Alessandro Arroyo would not significantly impede the movement of any wildlife that typically use the arroyo as a corridor. While smaller mammals and other wildlife that typically use the Alessandro Arroyo may temporarily cease to use this corridor during construction, this would be short term, and no permanent impacts to wildlife movement would occur. Therefore, impacts would be **less than significant**.

Scenario 4

Under Scenario 4, the Proposed C Street would be constructed west of Washington Street to provide a connection to SR-91. As discussed above, the fill crossing and bridge would not result in significant impacts to wildlife corridors or wildlife movement.

The alignment for the Proposed C Street is within an urban setting with agricultural and residential uses also not located within an identified wildlife corridor or linkage area (i.e., not in the Criteria Area) for the MSHCP. The area where the new road is proposed does not serve as a wildlife movement corridor due to the level of development and lack of open natural space and related features such as drainages. Implementation of the Proposed C Street would not affect wildlife movement corridors; thus, impacts would be **less than significant**.

Off-site

Off-site traffic improvements such as stop signs, traffic signals, and new turn lanes at existing intersections are proposed in developed areas that are not identified as wildlife corridors. **No impact** would occur.

3.3.6.2 Significance of Impacts

Maintaining or removing the gates under Scenarios 1 and 2 would not occur in designated wildlife corridors, and would therefore not interfere substantially with wildlife corridors. No impact would occur.

The connection of Overlook Parkway associated with Scenarios 3 and 4 is proposed in an area surrounded by residential development, outside of a designated wildlife corridor. While smaller mammals and other wildlife that typically use the Alessandro Arroyo may temporarily cease to use this corridor during construction, there would be no significant, permanent impacts to this wildlife movement corridor.

The Proposed C Street under Scenario 4 only would also not be located in a wildlife movement corridor due to the level of development and lack of open natural space and related features such as drainages. Impacts from the road construction would also be less than significant.

No impacts would occur from implementation of off-site improvements.

3.3.6.3 Mitigation, Monitoring, and Reporting

No mitigation is required.

3.3.7 Issue 4: Local Policies and Ordinances

Would the proposed Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

3.3.7.1 Impact Analysis

The four scenarios are evaluated in relation to the City of Riverside's Urban Forestry Policy Manual (City of Riverside 2007c). See Section 3.3.8 for the discussion comparing the four scenarios to the MSHCP and Steven's Kangaroo Rat HCP. Section 3.9, Land Use and Aesthetics, evaluates each scenario's relationship to the General Plan 2025.

Scenario 1

Under Scenario 1, both Crystal View Terrace and Green Orchard Place gates would remain in place and be closed until Overlook Parkway is connected across the Alessandro Arroyo and to Alessandro Boulevard. This scenario would not conflict with the Urban Forestry Policy Manual, as no trees would be removed or planted under this scenario. **No impact** would occur.

Scenario 2

Under Scenario 2, the gates would be removed, and there would be no connection of Overlook Parkway at this time. Like Scenario 1, no construction would occur, and no trees would be removed or planted under this scenario. **No impact** would occur.

Scenario 3

Under Scenario 3, both the fill crossing and roadway bridge would be constructed. The Urban Forestry Policy Manual provides guidelines for the planting, pruning, preservation, and removal of all trees in the City right-of-way, such as the new roadway segments that would be constructed. A subset of the Urban Forestry Policy Manual is the Master Urban Forest Plan Guidelines. The Guidelines specify tree species for each neighborhood

block, and has been evaluated and approved by the Parks, Recreation, and Community Services Commission to ensure that the right tree is planted in the right place.

The proposed roadway connection (approximately 465 linear feet) east of the Alessandro Arroyo between Brittanee Delk Court and Sandtrack Road would be completed. As part of the improvements, the existing median would be extended into the new portions of Overlook Parkway. The trees planted in the median would be similar to the trees already planted in the completed section of Overlook Parkway east of the fill crossing to ensure aesthetical continuity; therefore, impacts would be **less than significant**.

A bridge would also be constructed over the Alessandro Arroyo between Crystal View Terrace and Via Vista Drive. The bridge deck over the arroyo has been designed with two 33.5-foot-wide bridges, separated by a 31-foot-wide gap. Because the bridge has been designed to minimize impacts to the arroyo by constructing two bridges, there would not be a median, and thus no street trees would be planted. Similarly, the two-foot-wide shoulder would not be able to accommodate any street trees. Thus, the bridge would not be required to comply with the Urban Forestry Policy Manual. Impacts would be **less than significant**.

Scenario 4

Similar to Scenario 3, discussed above, the fill connection and bridge associated with the connection of Overlook Parkway would be designed in accordance with the guidelines for street trees in the Urban Forestry Policy Manual. Scenario 4 includes the fill crossing and bridge, and as discussed above, impacts associated with compliance to the Urban Forestry Policy Manual would be less than significant. Under Scenario 4, the Proposed C Street would also be constructed. The Proposed C Street would include four lanes of travel within 80 feet of curb-to curb improvements, including a 12-foot median. The Master Urban Forest Plan specifies tree species for each neighborhood block to ensure that the right tree is planted in the right place. As specified in the planting guidelines, new tree species in the median or shoulder would be selected based on site conditions and tree planting guidelines. Adherence to the guidelines would ensure the appropriate placement and species of trees for the right-of-way along the Proposed C Street, and impacts would be **less than significant**.

Additional components in this scenario include a cul-de-sac and roadway vacation along Washington Street from Engle Drive to just north of the existing Overlook Parkway and Washington Street intersection; a cul-de-sac and roadway vacation along Dufferin Avenue, west of the Proposed C Street; the realignment of Lenox Avenue/Graylock Avenue to provide a connection to the Future Parkway and the existing Washington Street; and the vacation of a portion of Madison Avenue and a realignment to the Proposed C Street (see Figure 2-16). Activities to complete these roadway vacations are not anticipated to require the removal of trees. Overall, the City Department of Public

Works and/or any private contractors would be required to comply with all relevant guidelines with the Urban Forestry Policy Manual and Master Urban Forest Plan for implementation of streetscape elements. Impacts would be **less than significant**.

Off-site

Off-site improvements include stop signs, traffic signals, and new turn lanes at existing intersections in developed areas. As acknowledged in the manual, work on sidewalks, curbs, and gutters may occur in areas where trees are located. To manage this process and protect existing trees, the Department of Public Works is required to follow all specifications detailed in the tree guidelines, including the evaluation of existing trees, and if necessary replace any trees that may need to be removed as a part of the roadway vacation process. This would ensure that **no impacts** occur.

3.3.7.2 Significance of Impacts

Scenarios 1 and 2 would not conflict with the Urban Forestry Policy Manual, as no trees would be removed or planted under this scenario. Impacts would be less than significant.

For Scenarios 3 and 4, trees planted in the median of the fill crossing would be similar to the trees already planted in the completed section of Overlook Parkway east of the fill crossing, to ensure aesthetical continuity. Because the bridge has been designed to minimize impacts to the arroyo, there would not be a median, and thus no street trees would be planted on the bridge. Impacts would be less than significant.

Conformance to the guidelines for street trees in the Master Urban Forest Plan Guidelines would ensure that any new tree species for the Proposed C Street would blend with the surrounding area. During implementation of Scenario 4, the Department of Public Works is required to comply to all specifications detailed in the guidelines to manage this process and protect existing trees to ensure that impacts would be less than significant.

No impacts would occur from implementation of off-site improvements.

3.3.7.3 Mitigation, Monitoring, and Reporting

No mitigation is required.

3.3.8 Issue 5: Conservation Plans

Would the proposed Project conflict with the provisions of the MSHCP, Stephens' Kangaroo Rat HCP, or other approved conservation plan that applies to the Project vicinity or adjacent lands?

3.3.8.1 Impact Analysis

Scenario 1

As discussed throughout this section, this scenario would keep the gates in place. This scenario would have no impact on biological resources. This scenario also does not involve sensitive communities or species addressed in the MSHCP. Although within the Stevens' kangaroo rat fee area, the proposed action would not involve payment of mitigation fees as no parcel development is proposed. As such, this scenario would not conflict with the provisions of the MSHCP or Stephens' Kangaroo Rat HCP. **No impact** would occur.

Scenario 2

As discussed throughout this section, this scenario would remove the gates. Similar to Scenario 1, this scenario would not conflict with the provisions of the MSHCP or Stephens' Kangaroo Rat HCP. **No impact** would occur.

Scenario 3

As discussed throughout this section and shown in Table 3.3-1, this scenario would not conflict with the provisions of the MSCHP. The proposed work areas are not within a Criteria Cell or Conservation Area. Although designed to minimize impacts to adjacent sensitive resources, the fill crossing and bridge are not within or near a Conservation Area, and thus are not subject to the urban/wildland's interface guidelines. The Eastern and Alessandro Arroyo Survey Areas are not in any of the areas where surveys for narrow endemic plants are required, but have been assessed for the potential occurrence of special status plants (see Section 3.3.4 above). This scenario would mitigate, minimize, or avoid impacts to riparian/riverine areas, and a DBESP has been prepared to document replacement of any lost functions and values of habitat as it relates to Covered Species (see Section 3.3.5 above). Other survey requirements including focused surveys and a habitat assessment were conducted in accordance with MSHCP requirements.

Implementation of this scenario would require the payment of fees to the MSHCP. New roadway projects in the City are required to contribute five percent of the facility construction cost to the Western Riverside County Regional Conservation Authority (WRCRCA). Overall, this scenario implements all requirements detailed by the MSHCP and would not conflict with any provisions; thus, impacts would be **less than significant**.

Project impacts associated with this scenario would be outside of a Stephens' kangaroo rat reserve; however, both the Eastern and Alessandro Arroyo Survey Areas are within the Stephens' Kangaroo Rat HCP fee area, where development is permitted and Project compliance is achieved with payment of a mitigation fee. If this scenario were

implemented, the City would pay a fee of $500.00 per gross acre of the parcels proposed for development prior to construction. By paying the fees, this scenario would comply with the Stephen's Kangaroo Rat HCP; thus, impacts would be **less than significant**.

Scenario 4

A DBESP was prepared and surveys were conducted in accordance with MSHCP requirements. As discussed above, Scenario 4 would not conflict with any applicable provisions of either the MSCHP or the Stephens' Kangaroo Rat HCP, and impacts would be less than significant. The addition of the Proposed C Street would also not pose a conflict with these local plans, including relevant provisions of the MSCHP, as discussed below. The Proposed C Street is not within a Criteria Cell or Conservation Area and also not subject to the urban/wildland's interface guidelines. The Western Survey Area is not in any of the areas where surveys for narrow endemic plants are required, but has been assessed for the potential occurrence of special status plants (see Section 3.3.4 above). Similar to Scenario 3, implementation of this scenario would require the payment of fees to the MSHCP. New roadway projects in the City are required to contribute five percent of the facility construction cost to the WRCRCA.

As detailed above in Section 3.3.4, this scenario is outside of a Stephens' kangaroo rat reserve, but inside the Stephens' Kangaroo Rat HCP area (fee area), where development is permitted and Project compliance is achieved with payment of a mitigation fee. If this scenario were implemented, the City would pay a fee of $500.00 per gross acre of the parcels proposed for development prior to construction. By paying the development fees, this scenario would comply with the Stephen's Kangaroo Rat HCP; thus, impacts would be **less than significant**.

Off-site

Off-site traffic improvements such as stop signs, traffic signals, and new turn lanes at existing intersections are proposed in developed areas. These improvements do not conflict with the provisions of the MSHCP, Stephens' Kangaroo Rat HCP, or other approved conservation plan that applies to the Project vicinity or adjacent lands. **No impact** would occur.

3.3.8.2 Significance of Impacts

Scenarios 1 and 2 would have no impact on biological resources and would not conflict with the provisions of the MSHCP or Stephens' Kangaroo Rat HCP. No impact would occur.

Scenarios 3 and 4 would implement all requirements detailed by the MSHCP, including the payment of fees. These scenarios would also comply with the Stephen's Kangaroo

Rat HCP. Because there would not be a conflict with any approved conservation plan, impacts would be less than significant.

No impacts would occur from implementation of off-site improvements.

3.3.8.3 Mitigation, Monitoring, and Reporting

No mitigation is required.

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