

Policy 1.3: Conserve and protect important plant communities and wildlife habitats, such as riparian areas, wetlands, vernal pools, oak woodlands and other significant tree stands, and rare and endangered species.

The Project does not propose any above-ground structures that would require the removal of important natural resources. The proposed Project includes mitigation measures identified in Section 3.4, Biological Resources, of this DEIR, which when implemented will conserve and protect important plant communities and wildlife habitats.

3.1.4.3 Hemet General Plan

The Hemet General Plan Resource Management Element does not contain specific goals or policies regarding the preservation of scenic highway vistas or aesthetic features; however, the Concept for Section 6 (Historical Resources and Cultural Heritage) of the Resource Management Element states that a resource ...*shall be considered to be of significant cultural value if ... it is a hill, geologic formation, body of water, arroyo, remaining natural vegetation or other striking or familiar physical characteristic that is important to the special character, historic identity or aesthetic setting of the community* (HGP, p. II-E-41).

The portion of the Project area that is within Hemet is largely developed and does not contain any of the above-described features; thus, implementation of the proposed Project will not conflict with the Resource Management Element of the Hemet General Plan.

3.1.4.4 San Jacinto Valley Area Plan

The San Jacinto Valley Area Plan has the following policy with respect to scenic highways lands (COR SJVAP, p. 37):

SJVAP 12.1 Protect the scenic highways in the San Jacinto Valley Area Plan from change that would diminish the aesthetic value of adjacent properties in accordance with the Scenic Corridors sections of the General Plan Land Use, Multipurpose Open Space, and Circulation Elements.

As discussed in Section 3.1.6, below, the basins proposed by the SJV-MDP have above-ground facilities; however, since the proposed basins are not located within or adjacent to scenic corridors, the proposed Project would not diminish scenic highways and is consistent with policy SJVAP 12.1.

3.1.5 Project Design Considerations

No specific designs were considered that would avoid or reduce potential impacts to scenic resources. The type, size, and locations of the proposed drainage facilities are limited by the hydrologic constraints and existing development within the SJV-MDP. The proposed Project is intended to identify those facilities needed to provide flood protection to existing and future development as the Project area develops in accordance with the land use policies of the cities of San Jacinto and Hemet and, for the unincorporated area, the San Jacinto Valley Area Plan.

3.1.6 Environmental Impacts Before Mitigation

***Threshold:** Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.*

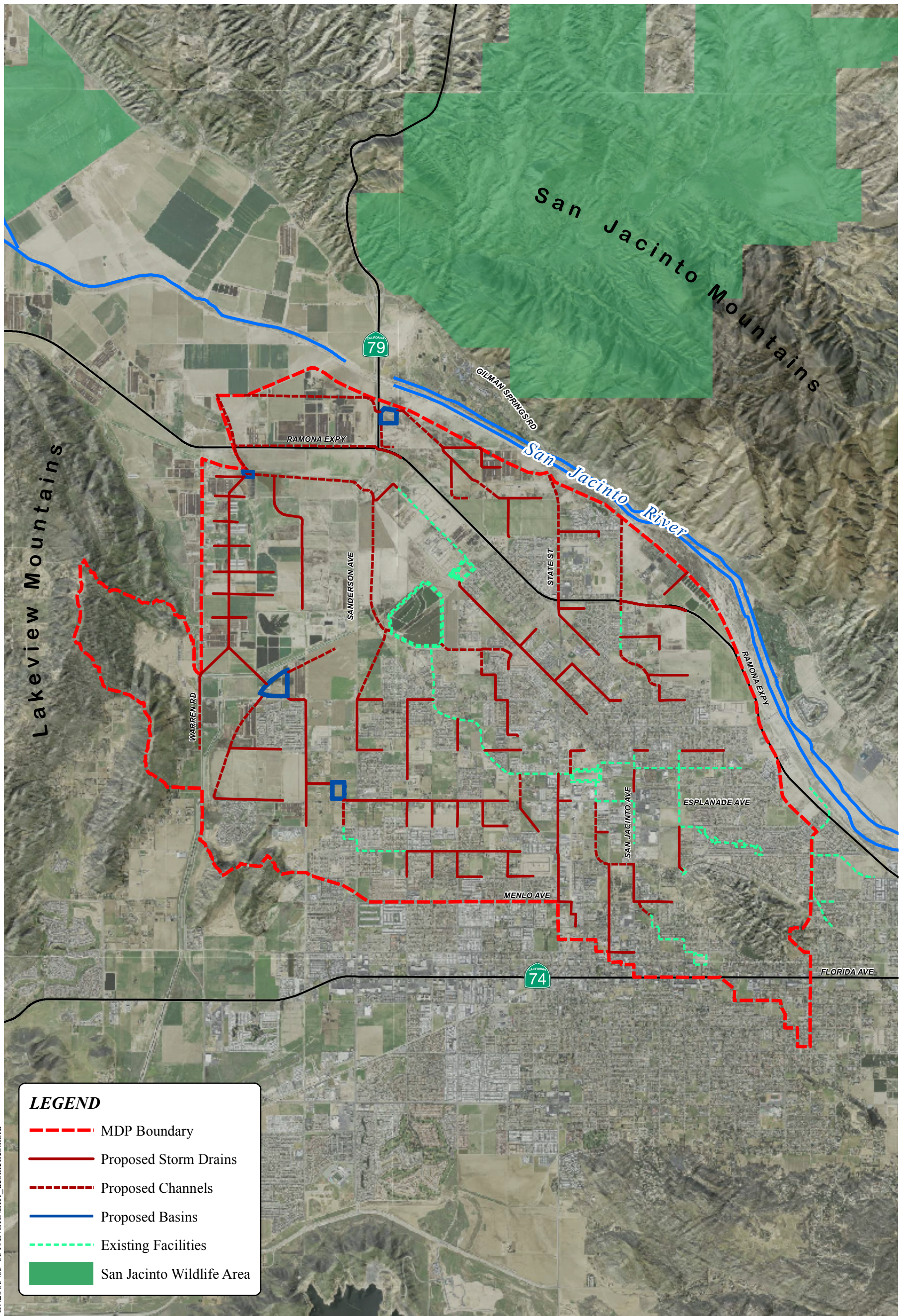
Figure 3.1-2, Proposed Project, shows Project facilities. The proposed facilities are located almost entirely within road rights-of-way (ROW) and disturbed agricultural areas. The SJV-MDP proposes three types of drainage features: underground storm drains, open channels (exposed but flush with the finished grade), and open basins (in-ground and surrounded by maximum six-foot high berms). Since the proposed storm drains will be underground facilities and once constructed will not be visible, there will be no impact to scenic resources associated with the proposed storm drains. The open channels and basins will be visible after construction and will be the focus of the discussion in this section.

There are no State Designated Scenic Highways within the Project area. The closest State Designated Scenic Highway is Highway 243 (Banning/Idyllwild Panoramic Highway), which is located over seven and one-half miles northeast of the Project's northeastern boundary. Due to the distance of this highway from the proposed Project area, **impacts to State Designated Scenic Highways will be less than significant.**

State Route 74 (Florida Avenue), as it passes east to west through Hemet, is considered a State Eligible Scenic Highway. State Route 74 traverses through the southernmost portion of the Project area; however, as indicated on **Figure 3.1-2**, there are no facilities proposed within one-quarter mile of this State Eligible Scenic Highway. The closest proposed facilities are storm drains, which will not be visible after construction. Therefore, **the SJV-MDP will not impact State Eligible Scenic Highways.**

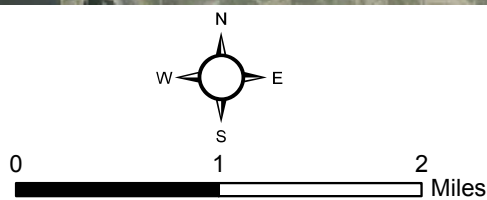
Ramona Expressway, Gilman Springs Road, State Route 79, and Soboba Road, which are located in proximity to the Project area, are designated County Eligible Scenic Highways in the San Jacinto Valley Area Plan (COR SJVAP, Figure 9). Gilman Springs Road, State Route 79, and Soboba Road are not located within the boundaries of the SJV-MDP, thus the proposed Project will not impact these highways.

Ramona Expressway passes through the Project area. Line 2 and Line J-3 are proposed to be located adjacent to the Ramona Expressway; Line H is proposed to cross Ramona Expressway. Line 2 is proposed as an underground storm drain from Sanderson Avenue to a point approximately 2,000 feet east of the Ramona Expressway/Sanderson Avenue intersection, and as an open channel from the Ramona Expressway/Sanderson Avenue intersection approximately one and one-quarter mile west (**Figure 3.1-2**). Line J-3 is an open channel, which would be located adjacent to Ramona Expressway from the Ramona Expressway/San Jacinto Avenue intersection approximately 2,750 feet east of said intersection (**Figure 3.1-2**). Currently, portions of both Line 2 and Line J-3 have visible water-related erosion at points along both sides of the roadway; signs of deeper erosion are visible along portions of Line J-3. Line H is a storm drain that would cross Ramona Expressway at State Street, with an open channel portion starting north of the intersection.



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Sources: USGS 10m DEM;
 Digital Globe, April 2008.



**Figure 3.1-2
 Proposed Project**

The open channel portions at these locations could be visible to passing motorists using Ramona Expressway. While the open channel facilities will not be located, they will not have any vertical features that extend above grade but will be depressed relative to the surrounding terrain; consequently, general visibility of this type of facility is considered low. Due to their location along Ramona Expressway, any view of an above-ground facility would be brief lasting less than one minute for motorists traveling average speeds; the posted speed limit ranges up to 65 mph along the subject segments. Due to the limited visual exposure to these facilities, direct **impacts to a County Eligible Scenic Highway are considered less than significant.**

The Project will provide drainage infrastructure that could support urban development in San Jacinto, portions of Hemet, and portions of Riverside County. Such development will change the visual setting of the Project area. Therefore, the Project has the potential to indirectly damage scenic resources. With respect to potential impacts to scenic resources in the Project Area, all future development projects will be subject to review and approval by the appropriate agency (San Jacinto, Hemet, or Riverside County) and must be consistent with the General Plan policies, ordinances, and regulations of the jurisdiction in which the development project is located.

The San Jacinto General Plan EIR concluded that development of urban uses in: (i) areas with steep sloping hillsides and ridgelines associated with the San Jacinto Mountain Range; (ii) open space; and (iii) agricultural areas could result in significant impacts to scenic resources; but that these potential impacts would be less than significant with the implementation of mitigation measures requiring San Jacinto to: (i) preserve significant hillsides and ridgelines on San Jacinto's eastern and western borders as Open Space; (ii) limit development on the more gently sloped areas at the base of the eastern and western hillsides to non-intensive development, and (iii) develop guidelines for development visible from designated scenic routes and vistas to minimize impacts to scenic vistas (SJGP FEIR, p. 20). Since any development in San Jacinto would be consistent with its General Plan, indirect impacts to scenic resources in San Jacinto would be less than significant through San Jacinto-mandated governmental actions implementing the San Jacinto General Plan.

The Riverside County General Plan EIR concluded that future development in the unincorporated territory of Riverside County could, depending upon the location, extent, density, and configuration of such development, change the views of undisturbed natural areas, open space, scenic vistas and designated scenic routes, points of historic or cultural significance, agricultural areas (e.g., vineyards, citrus groves), and other human-made features. The Riverside County General Plan EIR further concluded, that potential impacts to scenic and visual resources would be less than significant because all future development projects would be consistent with the Riverside County General Plan, which includes policies that would: (i) concentrate growth near or within existing urban and suburban areas; (ii) preserve the existing rural and open space character of Riverside County; (iii) provide for the permanent preservation of important natural and scenic resources; (iv) incorporate open space within developed areas; (v) ensure the compatibility of existing and new development; maintain or enhance the character of specific development project sites and immediate surroundings; (vi) conserve view corridors, skylines, and scenic vistas; and (vii) impose restrictions on development activities that may adversely affect the existing visual characteristics of sites within the unincorporated area (COR GP FEIR,

Section 4.4.3). Since any development in unincorporated Riverside County would be consistent with the Riverside County General Plan, indirect impacts to scenic resources in Riverside County would be less than significant through governmental actions implementing the Riverside County General Plan.

The Hemet General Plan concluded that future development per the Hemet General Plan will preserve the scenic views of large scale land forms such as the San Jacinto Mountains and local landforms in the boundaries of the SJV-MDP such as Parkhill, but the character of Hemet would be converted from predominately rural to suburban and views of major and local scenic features would be preserved (HGP, EIR pp. D-29 and D-30). Since any development in Hemet would be consistent with the Hemet General Plan, indirect impacts to scenic resources in Hemet would be less than significant through governmental actions implementing the Hemet General Plan.

3.1.7 Proposed Mitigation Measures

An Environmental Impact Report is required to describe feasible mitigation measures which could minimize significant adverse impacts (*State CEQA Guidelines*, Section 15126.4). Since the proposed Project will result in **less significant impacts** with respect to aesthetics, no mitigation measures are proposed.

3.1.8 Summary of Environmental Effects After Mitigation Measures Are Implemented

Potential significant adverse impacts associated with substantial damage to scenic resources within a state highway were found to be **less than significant**.

3.2 AGRICULTURAL RESOURCES

No potential impacts related to agricultural resources were found to be less than significant in the Initial Study/NOP prepared for the Project (Appendix A); therefore, the focus of the following discussion is related to the Project's potential to:

- convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
- conflict with existing zoning for agricultural use, or a Williamson Act contract; or
- involve other changes in the existing environment which, due to their location or nature could result in conservation of Farmland to non-agricultural use.

In addition to other documents, the following references were used in the preparation of this section of the DEIR:

- City of Hemet, *General Plan*, August 25, 1992. (Available at the City of Hemet Planning Department.) (HGP)
- City of Hemet, *Hemet General Plan Final Environmental Impact Report*, August 25, 1992. (Available at the City of Hemet Planning Department.) (HGP FEIR)
- City of Hemet, *Hemet Municipal Code, Chapter 58 Planning and Development, Article VII, Hemet Right-to-Farm Ordinance*, adopted May 14, 1996. (Available at the City of Hemet Office of the City Clerk and at <http://www.municode.com/resources/gateway.asp?pid=12521&sid=5>, accessed on May 12, 2009.) (HMC Chapter 58)
- City of Hemet, *General Plan Goals and Policies Workbook*. (Available at the City of Hemet Planning Department.) (HGP Update GAP)
- City of Hemet, *Proposed Land Use Plan and Circulation System, March 2009*. (Available at the City of Hemet Planning Department and at http://www.hemetgeneralplan.net/pdf/maps/X06268298_11_020_GPLU_Map_March3_2009.pdf.) (HGP Update LUP)
- City of San Jacinto, *Municipal Code*, April 2008. (Available at <http://www.ci.san-jacinto.ca.us/city-govt/zoning/ARTICLE%2014E%20CONTROLLED%20FARMING%20AREA.pdf>, accessed on July 13, 2009.) (SJ MC)
- City of San Jacinto, *San Jacinto Final Environmental Impact Report Findings*, April 2006. (Available at the San Jacinto City Clerk's Office.) (SJGP FEIR)
- City of San Jacinto, *San Jacinto Final Environmental Impact Report Findings – Statement of Overriding Considerations*, April 2006. (SJGP FEIR SOC)
- City of San Jacinto, *San Jacinto General Plan Draft EIR*, January 2006. (Available at <http://www.ci.san-jacinto.ca.us/city-govt/general-plan-EIR.html>, accessed on May 4, 2009.) (SJGP DEIR)

- City of San Jacinto, *San Jacinto General Plan, Resource Management Element*, January 2006. (Available at <http://www.ci.san-jacinto.ca.us/city-govt/development/general-plan/Housing%20Element.pdf>, accessed on May 6, 2009.) (SJGP RME)
- City of San Jacinto, *San Jacinto General Plan, Land Use Element*, January 2006. (Available at <http://www.ci.san-jacinto.ca.us/city-govt/development/general-plan/Housing%20Element.pdf>, accessed on May 6, 2009.) (SJGP LUE)
- County of Riverside, *County of Riverside General Plan, San Jacinto Valley Area Plan*, October 2003. (Available at <http://www.rctlma.org/genplan/content/ap2/sjvap.html>, accessed on May 1, 2009.) (COR SJVAP)
- County of Riverside, *Ordinance No. 625 (As Amended through 625.1) An Ordinance of the County of Riverside Amending Ordinance No. 625 Providing a Nuisance Defense for Certain Agricultural Activities, Operations, and Facilities, and Providing Public Notification Thereof*, Amended November 8, 1994. (Available at the Office of the Clerk of the Board and at <http://www.clerkoftheboard.co.riverside.ca.us/ords/600/625.1.pdf>, accessed on May 11, 2009.)
- County of Riverside, Transportation and Land Management Agency, Planning Division, *Riverside County Integrated Project, General Plan Final Program Environmental Impact Report*, 2003. (Available at the County of Riverside Planning Department and at <http://www.rctlma.org/genplan/content/eir/volume1.html>, accessed on May 4, 2009.) (COR GP FEIR)
- State of California Department of Conservation, *Important Farmland Mapping Categories and Soil Taxonomy Terms*. (Available at http://www.conservation.ca.gov/dlrp/fmmp/Documents/soil_criteria.pdf, accessed on May 12, 2009.) (CA DOC)

3.2.1 Setting

Agriculture has been the predominant historic use within the boundaries of the SJV-MDP due to the area's favorable soils and climatic conditions. The Project area includes groves and orchards, field croplands, dairies, and livestock feed yards (*San Jacinto General Plan Draft EIR*, Figure 5.2-1). The SJV-MDP includes land within the cities of San Jacinto and Hemet, in addition to unincorporated Riverside County, as summarized in **Table 3.2-A**.

Table 3.2-A, Acreage and Municipalities within the San Jacinto Valley Master Drainage Plan

Municipality	Acres	Portion of Total
San Jacinto	12,812	73.3%
Hemet	3,216	18.4%
Unincorporated County	1,449	8.3%
Total	17,476	100.0%

Rapid population growth throughout the Inland Empire and specifically in the Project area places increasing development pressure on existing agricultural lands. Although it is expected that many of the existing agricultural uses in the Project area will continue to operate in the future, the San Jacinto General Plan acknowledges that increasing pressures from surrounding urban development and economic pressures will likely result in the transition of agricultural areas to urban uses (San Jacinto General Plan Resource Management Element (SJGP RME, p. RM-28). In recognition of this transition, the San Jacinto General Plan does not specifically designate any land for agricultural uses and will allow development, which will convert existing agricultural resources to non-agricultural uses. (SJGP DEIR, p. 5.2-7) General Plan designated land uses within the San Jacinto portion of the SJV-MDP includes: residential, commercial, business park, industrial, public institutional, park, open space, and water source (SJGP LUE, Figure LU-1).

The portion of the SJV-MDP within Hemet is largely developed with residential uses. The Hemet General Plan designated land uses within this portion of the SJV-MDP includes: residential, industrial, commercial, office, and public uses. There are no commercial agricultural uses present in the Hemet portion of the Project area.

As indicated in **Table 3.2-A**, approximately eight percent, of the SJR-MVP is within the unincorporated area of Riverside County. The Riverside County General Plan establishes 19 area plans, which when combined, encompass the whole of western Riverside County and significant portions of eastern Riverside County.

There are three separate areas in the SJV-MDP that are in the unincorporated area of Riverside County: an area in the northwest portion of the SJV-MPD, north of Ramona Expressway; an area south of the San Jacinto River and north of the San Jacinto corporate limits; and an area in the southeast portion of the MDP, south of Florida Avenue. All of these areas are within the San Jacinto Valley Area Plan (COR SJVAP, Figure 1).

The San Jacinto Valley Area Plan Land Use Plan designates the unincorporated territory in the northwest portion of the SJV-MPD area as being within the “Agriculture” and “Open Space” Foundation Components. The portion of this northeast area within the “Open Space” Foundation Component has a land use designation of “Conservation.” The unincorporated territory in the southwest portion of the SJV-MDP is within the “Community Development” Foundation

Component has land use designations of “Business Park,” “Commercial,” and “Medium Density Residential.”

3.2.1.1 Department of Conservation Important Farmland Classifications

The Department of Conservation (DOC) classifies and maps land within the state as: Prime Farmland, Farmland of Statewide Importance, Unique Farmland (collectively referred to as Important Farmland), and Grazing Land to provide information regarding Important Farmland conversion to decisions makers for use in planning the present and future use of California’s agricultural land resources. The Project area contains Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance (**Figure 3.2-1**). **Table 3.2-B, Important Farmland within the San Jacinto Valley Master Drainage Plan**, presents a summary of the criteria used to categorize Farmland and the amount of each type of Farmland present in the Project area.

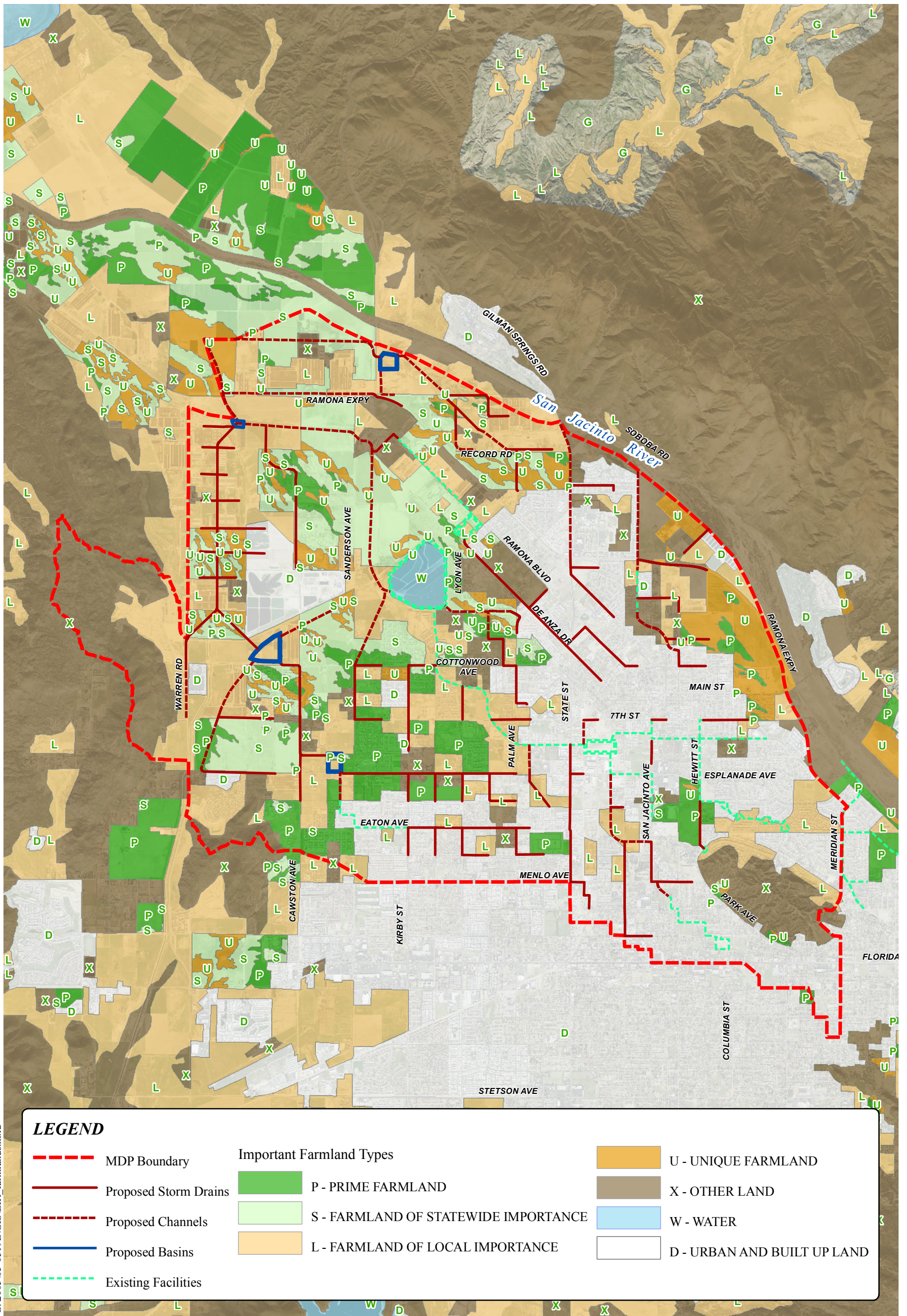
Table 3.2-B, Important Farmland within the San Jacinto Valley Master Drainage Plan

Type of Farmland	Characteristics	Acreage in SJV-MDP	Portion MDP Area
Prime Farmland	Land which has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods. Prime Farmland must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date.	1,298	7.5%
Farmland of Statewide Importance	Land other than Prime Farmland which has a good combination of physical and chemical characteristics for the production of crops. It must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date.	2,188	12.5%
Unique Farmland	Land which does not meet the criteria for Prime Farmland or Farmland of Statewide Importance, that has been used for the production of specific high economic value crops at some time during the two update cycles prior to the mapping date. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality and/or high yields of a specific crop when treated and managed according to current farming methods.	1,127	6.5%

Type of Farmland	Characteristics	Acreage in SJV-MDP	Portion MDP Area
Farmland of Local Importance	Farmland of Local Importance is either currently producing crops, has the capability of production, or is used for the production of confined livestock. Farmland of Local Importance is land other than Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. This land may be important to the local economy due to its productivity or value.	4,199	24.0%
Grazing Land	Land on which the existing vegetation is suited to the grazing of livestock. The minimum mapping unit for Grazing Land is 40 acres.	0	0%
Urban and Built-up Land	Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures per 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administrative purposes, railroad yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment plants, water control structures, and other development purposes.	5,997	34.3%
Other Land	Land not included in any other mapping categories; such as: low density rural developments; brush, timber, wetland, and riparian areas not suitable for grazing; confined livestock, poultry or aqua culture facilities; strip mines, borrow pits; and water bodies smaller than 40 acres. Includes vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres.	2,515	14.3%
Water	Bodies of water	153	0.9%
Total All Farmland		17,477	100.0%

Sources: California Department of Conservation, SJGP DEIR

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LEGEND

	MDP Boundary		P - PRIME FARMLAND		U - UNIQUE FARMLAND
	Proposed Storm Drains		S - FARMLAND OF STATEWIDE IMPORTANCE		X - OTHER LAND
	Proposed Channels		L - FARMLAND OF LOCAL IMPORTANCE		W - WATER
	Proposed Basins				D - URBAN AND BUILT UP LAND
	Existing Facilities				

Sources: California Dept. of Conservation, FMMP, 2004;
 Digital Globe, April 2008.

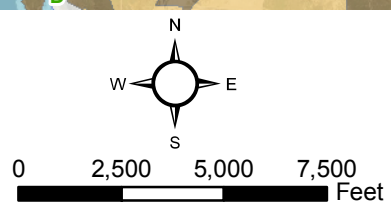


Figure 3.2-1
Calif. Dept. of Conservation
Important Farmland

3.2.2 Comments Received in Response to the Notice of Preparation

No comments were received in response to the NOP relative to agricultural resources.

3.2.3 Thresholds of Significance

San Jacinto has not established local CEQA significance thresholds as described in Section 15064.7 of the *State CEQA Guidelines*. However, San Jacinto's, "Environmental Checklist" for the Project (Appendix A of this document) as well as Hemet's and RCFCWCD's environmental checklists indicates that impacts to agricultural resources may be considered potentially significant if the proposed Project would:

- convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
- conflict with existing zoning for agricultural use, or a Williamson Act contract; or
- involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.

3.2.4 Related Regulations

3.2.4.1 The Williamson Act (California Land Conservation Act of 1965)

The Williamson Act was enacted to preserve both prime and nonprime agricultural land for continued production. Participation in the Williamson Act program is voluntary wherein property owners enter a minimum 10-year rolling contract with local governments in which they agree to commit the land to agricultural use in return for a property tax assessment based upon agricultural productivity, rather than upon the property's assessed market value.

At the end of each year, another year is automatically appended to the contract term, so that the minimum commitment remains ten years. A Williamson Act contract may only be cancelled outright under specific circumstances. However, a property owner may decline to renew the contract by filing a Notice of Nonrenewal per the provisions of the Williamson Act at any year's end. The contract will expire ten years after filing the Notice of Nonrenewal, during which time the property taxes will increase until the taxes eventually equal that land's assessed value at the end of the contract term.

There are properties under Williamson Act contracts generally located east and north of the Casa Loma Canal, and west of Sanderson Avenue in the Project area.

3.2.4.2 City of San Jacinto

San Jacinto General Plan

The Resource Management Element of the San Jacinto General Plan sets forth the following goal and policies with respect to agricultural resources (SJGP RME, p. RM-9):

Resource Management Goal 5: Where appropriate, conserve agricultural lands and avoid the premature conversion of agricultural land to urban uses.

Policy 5.1: Encourage continuous agricultural operations,

Policy 5.2: Foster development techniques and agricultural practices that minimize the incompatibility of agricultural activities with urban development while maximizing agricultural production,

Policy 5.3: Protect agricultural lands from premature conversion to urban uses.

The SJV-MDP is a master plan that identifies drainage facilities that will be constructed over time in multiple phases as development occurs in the Project area. The SJV-ADP is a financing mechanism to fund SJV-MDP facilities. As discussed in Section 3.2.6, below, implementation of the Project may indirectly contribute to the conversion of agricultural land to urban uses.

San Jacinto Municipal Code

The San Jacinto Municipal Code (JC MC, Article 14E) establishes a Farming Overlay to clarify the application of zoning regulations to the conduct of agricultural activity and to provide for the designation of Controlled Farming Areas (CFA). Within the CFA, where agricultural activity has been abandoned, discontinued, or changed to a conforming use for a period of two or more years, generally, crop farming and grazing may be re-established, without the processing of a Conditional Use Permit, but subject to the following limitations:

1. The farmer shall annually register with the Community Development Department and the location and date/time of the proposed farming.
2. Aerial application is prohibited.
3. Dust shall be controlled to the same level required of weed abatement contractors.

The CFA overlay map shall not be revised or amended for a period of one year following the effective date of the establishment of the Article. Thereafter, the City, may from time to time, revise the CFA overlay map only after making written findings that there have been changed conditions of lands surrounding the farming operation and/or for conservation of issues concerning public health or general welfare.

The proposed Project does not directly or indirectly change land use, and will therefore not conflict with the Controlled Farming Area within the San Jacinto Municipal Code.

3.2.4.3 City of Hemet

Hemet General Plan

The Hemet General Plan includes the following strategies with respect to agricultural resources (HGP FEIR, p. D-68):

- A.b.(8) Formulate specific program for conversion of agricultural land uses*
- A.b.(9) Avoid premature conversion of agricultural lands*
- A.b.(10) Encourage incorporation of existing groves in project design*
- E.a.(3) Implement standards for preservation of dedicated natural open space*
- E.a.(5) Require recorded easements, deed restrictions, etc. over open space areas*

The proposed Project will not conflict with strategies A.b.(8), E.a.(3), or E.a.(5), as these strategies identify Hemet responsibilities. There are no groves in the Hemet portion of the Project area; thus, the Project will not conflict with strategy A.b.(10). As discussed in Section 3.2.6 below, implementation of the Project may indirectly contribute to the conversion of agricultural lands to urban uses; however, the Hemet portion of the Project area is not designated for agricultural use in the Hemet General Plan and there are very few commercial agricultural uses present. The proposed Project will not conflict with strategy A.b.(9).

Hemet is undertaking a comprehensive update of the Hemet General Plan (Hemet General Plan Update) and has conducted several community workshops, formed a General Plan Advisory Committee (GPAC), and surveyed residents on general plan topics. The information gathered from these sources was used to prepare the *City of Hemet General Plan Goals and Policies Workbook* and the *City of Hemet Proposed Land Use Plan and Circulation System*. The planning area for the Hemet General Plan Update includes Hemet and the Hemet Sphere of Influence (SOI).

Included among the land uses in the *City of Hemet Proposed Land Use Plan and Circulation System* is a “Resource Production” (RPro) designation, which allows agricultural uses. There are no RPro designated lands within the Project boundaries. The only RPro designated areas in the Hemet General Plan Update are in Hemet’s SOI (HGP Update LUP).

The *City of Hemet General Plan Goals and Policies Workbook* identifies the following goals and policies to protect prime agricultural land (HGP Update GAP, p. 19):

Goal OS-8: Protect prime agricultural land from conversion to urbanized uses.

Policy OS 8.1: Encourage conservation of productive agricultural lands and preservation of prime agricultural lands.

Policy OS 8.2: Encourage the continued use of prime agricultural lands in and around the planning area.

Policy OS 8.3: Coordinate with Riverside County to address the preservation of agricultural resources.

Policy OS 8.4: Where feasible, secure permanent open space for agriculture through dedication, easements, or other acquisition mechanisms.

Policy OS 8.5: Work with state and federal agencies to periodically update agricultural resource mapping to reflect current conditions.

The proposed Project will not conflict with policies OS 8.1 through OS 8.5 as these strategies identify Hemet responsibilities. As discussed in Section 3.2.6 below, implementation of the Project may indirectly contribute to the conversion of agricultural lands to urban uses; however, the Hemet portion of the Project area is not designated for agricultural use in the current Hemet General Plan or Hemet General Plan update.

Hemet Municipal Code

Hemet has a Right-to-Farm ordinance which is codified in Article VII, Sections 58-201 through 58-207 of the Hemet Municipal Code. The Right-to-Farm ordinance limits the circumstances under which agricultural operations may be deemed to constitute a nuisance. Under the provisions of this ordinance, no commercial agricultural activity (operation, facility, or associated appurtenances) that has been in operation for more than three years and is operating in a manner consistent with accepted customs and standards shall be considered a nuisance due to any changes in conditions in or around the agricultural activity, if such activity was not a nuisance at the time it began. The Right-to-Farm ordinance also requires a specific notice on the title sheet for any tentative land division that is partially or totally within an agricultural zone or within 300 feet of any land zoned for primarily agricultural purposes.

The facilities included in the SJV-MDP were sized to accommodate expected development in the Project area. The SJV-MDP does not propose any land use changes or subdivisions and therefore, is not in conflict with the Right-to-Farm ordinance.

3.2.4.4 Riverside County

Riverside County General Plan and San Jacinto Valley Area Plan

The San Jacinto Valley Area Plan has the following policy with respect to agricultural lands (COR SJVAP, p. 31):

Policy SJVAP 7.1: Maintain particular attention to the Foundation Component designation and Certainty System procedures/finding with respect to the agricultural designations in the lower San Jacinto Valley. Reference the agriculture section of the General Plan Land Use Element and the Agricultural Resources section of the Multipurpose Open Space Element.

As discussed in Section 3.2.1, the northwest portion of the SJV-MDP, which is within unincorporated Riverside County is within the Agriculture Foundation Component. However, implementation of the SJV-MDP will not require changes to the Foundation Component designation and as such is not inconsistent with Policy SJVAP 7.1.

The Land Use and Open Space Elements of the Riverside General Plan set forth a number of policies intended to conserve productive agricultural land. Most of these policies identify actions to be undertaken by Riverside County as part of the land development and approval process, actions to be taken with respect to working with state and federal agencies to maintain the agricultural resources map, or possible incentives for property owners to retain their property in agricultural use. The policies applicable to the Project are: (COR GP, pp. LU-45 – LU-46 and OS-18):

- LU 16.1 Encourage retaining agriculturally designated lands where agricultural activity can be sustained at an operational scale, where it accommodates lifestyle choice, and in locations where impacts to and from potentially incompatible uses, such as residential uses, are minimized, through incentives such as tax credits.*
- OS 7.3 Encourage conservation of productive agricultural lands and preservation of prime agricultural lands. (AI 3, 78)*

The SJV-MDP is a master plan that identifies drainage facilities that will be constructed over time in multiple phases as development occurs in the Project area. The SJV-ADP is a financing mechanism to fund SJV-MDP facilities. As discussed in Section 3.2.6 below, implementation of the Project may indirectly contribute to the conversion of agricultural land to urban uses.

Ordinance No. 625

Ordinance No. 625 is also known as the Riverside County Right-to-Farm Ordinance and was adopted by the County to limit nuisance complaints against agricultural operations in the County. Under the provisions of Ordinance No. 625, no commercial agricultural activity (operation, facility, or associated appurtenances) that has been in operation for more than three years and is operating in a manner consistent with accepted customs and standards shall be considered a nuisance due to any changes in conditions in or around the agricultural activity, if such activity was not a nuisance at the time it began. Ordinance No 625 also requires a specific notice on the title sheet for any tentative land division that is partially or totally within an agricultural zone or within 300 feet of any land zoned for primarily agricultural purposes.

The facilities included in the SJV-MDP were sized to accommodate expected development in the Project area. The SJV-MDP does not propose any land use changes or subdivisions and, therefore, is not in conflict with the Right-to-Farm ordinance.

3.2.5 Project Design Considerations

No specific designs were considered that would avoid or reduce potential impacts to agricultural lands or operations. The type, size, and locations of the proposed drainage facilities are limited by the hydrologic constraints and existing development within the SJV-MDP. The proposed Project is intended to identify those facilities needed to provide flood protection to existing and future development as the Project area develops in accordance with the land use policies of the cities of San Jacinto and Hemet and, for the unincorporated territory, the San Jacinto Valley Area Plan.

3.2.6 Environmental Impacts Before Mitigation

Threshold: *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.*

The Project is the SJV-MDP, which identifies drainage facilities that will be constructed over time in multiple phases as development occurs in the Project area, and the SJR-ADP, which provides a funding mechanism for the facilities. The SJV-MDP identifies, at a conceptual level, proposed storm drains, channels, and basins, which could be located in Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (collectively referred to as Important Farmland). The proposed storm drains are underground facilities, and as such, will not result in a permanent conversion of Important Farmland, as the facility footprint could be returned to its original condition.

Construction and operation of the proposed basin and channels would result in a permanent change to Important Farmland, as they are open facilities and must be maintained in order to retain flood control capacity. **Table 3.2-C, San Jacinto Valley MDP Basins and Channels Located within or Adjacent to Important Farmland**, identifies the basins and channels and the approximate acreage of each type of Important Farmland within the conceptual ROW for each facility.

**Table 3.2-C, San Jacinto Valley MDP Channels
 Acreage within Important Farmland**

SJV-MDP Facility	Acreage Within Important Farmland Types		
	Prime Farmland	Farmland of Statewide Importance	Unique Farmland
Line 1		8.18	0.22
Line 2		9.84	
Line 3		1.44	
Line 6			0.71
Line E		48.07	6.83
Line G-3	1.79	1.72	1.35
Line H	0.73		1.62
Line W	0.18	3.63	0.20
Line X	9.30	1.49	0.74
Line Z		5.24	18.47
Totals	12.00	79.61	30.14

Construction of the proposed open channels will be primarily located within or adjacent to road ROW. However, as indicated in Table 3.2-C, above, construction of SJV-MDP facilities will result in the direct conversion of approximately 121.75 acres of Important Farmland to open storm channel facilities; which is a **potentially significant impact**.

The proposed Line D Basin, which is anticipated to encompass approximately 15 acres, is located within an area identified as being Prime Farmland and Farmland of Statewide Importance. Therefore, construction of this facility will result in the direct conversion of 15 acres of Important Farmland to a non-agricultural use by converting the property to a flood control facility, which is a **potentially significant impact**.

Implementation of the proposed Project will provide drainage infrastructure that could support development of San Jacinto, portions of Hemet, and portions of unincorporated Riverside County. Development of these areas would result in the conversion of Important Farmland to non-agricultural uses; consequently the proposed Project has the potential to indirectly convert Important Farmland in the Project area. With the exception of the unincorporated territory in the northwest area of the SJV-MDP, the remainder of the Project is designated for non-agricultural uses by the San Jacinto General Plan, Hemet General Plan, and San Jacinto Valley Area Plan.

Threshold: *Conflict with existing zoning for agricultural use, or a Williamson Act contract.*

SJV-MDP conceptual alignment and location of open channels Line 1, Line 2, Line 3, Line X, and the Line E-Y-Z Confluence Basin are within property under a Williamson Act contract. With respect to the proposed open channels, construction will be primarily located within or adjacent to road ROW. Construction of open channels within existing road ROW will not conflict with or require the cancellation of a Williamson Act contract due to the limited direct impacts associated with construction and operation of the linear open channel facilities. The conversion of approximately 6.3 acres of Farmland of Local Importance under a Williamson Act Contract to a non-agricultural use will be required in the construction of the Line E-Y-Z Confluence Basin and will be a **direct impact** to a Williamson Act Contract.

With respect to indirect impacts to existing zoning and Williamson Act contracts, the San Jacinto General Plan does not include an agricultural land use designation and allows the development of currently zoned agricultural land for urban uses. By providing drainage infrastructure that could support development of the Project area, the proposed Project could indirectly contribute to the development of land currently zoned for agricultural uses or protected by a Williamson Act contract for urban uses, which is an **indirect significant impact**.

Threshold: *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.*

As previously discussed, the proposed Project will provide drainage infrastructure that could support development of the Project area. Development of adjacent areas would result in the direct conversion of farmland (including Important Farmland) to non-agricultural uses. Consequently, the proposed Project has the potential to indirectly convert farmland in the Project area. The San Jacinto, Hemet, and part of the unincorporated portions of the Project area are

designated for non-agricultural land uses in the adopted General Plans; thus the direct conversion of farmland to non-agricultural uses would likely occur in the Project area with the build out of the San Jacinto, Hemet, and Riverside County General Plans.

Because the proposed Project will likely support the conversion of farmland to non-agricultural uses, **impacts are considered potentially significant.**

3.2.7 Proposed Mitigation Measures

An EIR is required to propose and describe feasible mitigation measures to minimize significant environmental effects identified (Public Resources Code, Sections 21002.1(a), 21100 (b)(3); *State CEQA Guidelines*, Section 15126.4). Mitigation measures include actions that avoid impacts altogether or minimize, rectify, reduce, or compensate for an impact (*State CEQA Guidelines*, Section 15370). Under CEQA, “feasible” means “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.” (Public Resources Code, Section 21061.1)

Possible mitigation measures to eliminate or reduce the Project’s potentially significant impacts on Important Farmland were evaluated. The drainage facilities and improvements in the SJV-MDP will assist in the buildout of development identified in the General Plans for San Jacinto, Hemet, and Riverside County and the development of residential and employment uses adjacent to agricultural designated land. Both on-site and off-site mitigation of existing farmland at a one to one ratio was considered to offset the Project’s conversion of Important Farmland to non-agricultural uses.

On-site agricultural use would not be economically viable in the long term and would be inconsistent with the goals and objectives of the General Plans for San Jacinto, Hemet, and Riverside County. Off-site agricultural use is also infeasible because there is no other comparable land planned for agriculture use in San Jacinto or Hemet’s General Plans and placing agricultural restrictions on new parcels would result in the same or similar issues as with on-site mitigation. Off-site mitigation would also conflict with the goals and objectives of the respective General Plans.

Therefore, as further explained below, **no feasible mitigation exists to reduce or eliminate the conversion of Important Farmland to non-agricultural uses.**

3.2.7.1 Feasibility of On-Site Mitigation

Economic Viability of Large-Scale Agriculture

The viability of large-scale agriculture in the long term is threatened by a variety of economic factors, including increasing operational constraints, land prices, environmental regulation, water supply and costs, property taxes, competition, and growing urbanization.

Operational Constraints. Productive agricultural lands are lands that are involved in a long-term, substantial investment to agricultural use, and which have a long-term economic viability for agricultural use. Land development in areas surrounding the current agricultural parcels may

cause the operational and economic constraints of agricultural production to increase. Operational constraints include restrictions on the hours of operation, increasing labor costs, pesticide and fertilizer applications due to environmental regulations, implementation of required setbacks from adjacent non-agricultural uses, and clean up due to the use of farm equipment on public roads. Because these operational constraints tend to make farming a less efficient and profitable business, agricultural parcels become economically infeasible and are converted to more profitable land uses (SJGP FEIR, Section 4.2.1, HGP FEIR, p. D-66).

Land Prices. Land prices for urban development in the Project Area will rise as demand for new development continues within the Project area, which makes agricultural operations seem less profitable than other urban uses for which the property could be sold. The rise in land prices will make it unlikely that landowners will continue to use the land for agricultural production when it can be designed for other uses if substantial financial incentives are not provided.

Environmental Regulations. Regulatory compliance raises the costs associated with agricultural operations such as large-scale feed lots and dairies. For example, agricultural operations must often comply with the water quality standards for water bodies in California adopted pursuant to the Clean Water Act and requirements to reduce the amount of particulate matters released into the air under the Clean Air Act. These regulations cause agricultural producers to modify their production process and in turn increase their costs to produce crops. (SJGP FEIR, p. 5.2-9)

Water Supply/Costs. In June 2008, the Governor of California issued an Executive Order declaring drought in California. Because agricultural operations generally use more water than urban development parcels, farmers will likely be faced with higher prices for water due to the high demand in the surrounding region and the State. Drought conditions also reduce the amount of water available for agricultural uses in order to serve urban development (SJGP FEIR, p. 5.2-9).

Competition. Lower crop production in other areas of the State and foreign countries have impacted the ability of some farmers to compete in the Project area. For example, crops from foreign markets in Latin America can be produced at substantially lower costs due to cheaper labor costs, more available land and resources, and fewer regulatory requirements. (SJGP FEIR, p. 5.2-9)

Property Taxes. Non-agricultural uses generally generate higher property taxes for municipalities and counties, making the financial benefits of residential, commercial, and industrial development more appealing. (HGP FEIR, p. D-66)

Growing Urbanization. Agricultural uses face continuing pressure from urbanization associated with the housing needs of existing and future residents in the boundaries of the SJV-MDP. Many existing agricultural areas have been or are in danger of being encroached upon by uses that are negatively impacted by some agricultural operations, such as residences and schools (COR SJVAP, Agriculture Section). In addition, many of the Williamson Act contracts on lands in San Jacinto will expire in the upcoming years, allowing for development of the areas for non-agricultural uses. (SJGP RME, p. RM-5)

Accordingly, it is unlikely that large-scale agriculture in the Project area will be viable in the long term. Active private property owner cooperation as well as substantial financial incentives, could reduce the impact but not enough to be considered less than significant. Thus **permanent on-site mitigation of all impacted existing farmland is infeasible.**

Achievement of General Plan Goals and Objectives

San Jacinto. Policy 6.9 of the Land Use Element of the San Jacinto General Plan encourages the protection of agricultural resources and encourages the continuation of agricultural activities (SJGP LUE, p. LU-12). But the Resource Management Element of San Jacinto’s General Plan recognizes that while many of the existing farms “will continue to produce agricultural products, increasing pressures from surrounding new development, incompatibility with new development, and changes in the economy may result in the eventual development of these areas for urban uses” (SJGP RME, p. RM-9). Therefore, “[p]lanning for the eventual conversion of these areas into urban uses, while allowing agricultural areas to remain as an interim use, provides short- and long-term benefits to the City” (SJGP RME, p. RM-5).

Indeed, the San Jacinto General Plan Final EIR acknowledges that the San Jacinto General Plan does not specifically designate any land for agricultural uses and will allow new development to occur that will convert Important Farmland and lands in Williamson Act contracts to non-agricultural use (SJGP FEIR, p. 5.2-7-5.2-8). Mitigation Measure (MM) AG-1 in the San Jacinto General Plan Final EIR requires San Jacinto to ensure that “[n]ew development and redevelopment projects will provide and maintain setbacks and buffers, such as roadways, topographic features, and open space, to prevent incompatibilities between agricultural and non-agricultural land uses during the development of new projects” (SJGP FEIR, p. 5.2-8). San Jacinto General Plan Final EIR mitigation measure MM AG-1 further provides that San Jacinto will use a “number of factors to determine the appropriate buffer, including type of agricultural use, topography, and pesticide and machinery use, among others (SJGP FEIR, p. 5.2-8).

The San Jacinto General Plan Final EIR concludes that even though MM AG-1, along with the existing Right-to-Farm Ordinance and Williamson Act contracts, will minimize the San Jacinto General Plan’s impact on agricultural resources, it will not reduce it to a less than significant level (SJGP FEIR, p. 5.2-8). Thus, in approving the General Plan, San Jacinto found that specific economic, legal, social, technological and other considerations, as outlined above, made infeasible the mitigation measures and project alternatives identified in the Final EIR for agricultural resources and that the impact would therefore remain significant and unavoidable (SJGP FEIR SOC, p. 12).

Hemet. The Hemet General Plan contains strategies for conserving agricultural land uses and open space areas (HGP FEIR, p. D-68). But the General Plan Final EIR recognizes that increasing pressure from urban development over the past several decades and operational constraints have resulted in the decline of agriculture as a business venture (HGP FEIR, p. D-66). Therefore, the current Hemet General Plan provides for 80% of the land presently designated as agricultural to eventually be developed into urban uses, which the Final EIR for the Hemet General Plan concludes will be a significant impact (HGP FEIR, p. D-66). The current

agricultural uses within Hemet’s portion of the Project area are designated for residential uses at a density of 7–17 dwelling units per acre.

The *City of Hemet General Plan Goals and Policies Workbook* includes policies that encourage conservation, preservation, and the continued use of prime agricultural lands through coordination with Riverside County, acquisition of permanent open space for agriculture uses where feasible, and working with state and federal agencies to update agricultural resource mapping (HGP Update GAP, p. 19). The current agricultural uses within Hemet’s portion of the Project boundary are designated for low density (R5) and medium low density (R8) residential uses by the proposed land use plan prepared as part of the Hemet General Plan Update (HGP Update LUP). Based on the land use designation shown in the *City of Hemet Proposed Land Use Plan and Circulation Element*, Hemet has determined that the most appropriate location for continued agricultural uses is in Hemet’s SOI, not within Hemet’s city limits (HCP Update LUP).

However, the Project’s facilitation of development identified in the Hemet General Plan and Hemet General Plan Update within the Hemet portion of the Project area could result in indirect impacts outside of the Project area, such as commercial uses to serve adjacent residential development, and the conversion of agricultural uses to non-agricultural uses, should Riverside County approve such changes.

Riverside County. The Riverside County General Plan includes Land Use (LU) Policies and Open Space (OS) Policies to help reduce the effects of development on agricultural lands. Such policies encourage tax incentives, land conservation programs, adherence to the County’s Right-to-Farm Ordinance, and the combination of agriculture with other compatible open space uses to provide an economic advantage to agriculture (COR SJVAP, LU Policies 16.1 through 16.11 and OS Policies 7.1 through 7.5).

The Final Program EIR for the Riverside County General Plan concludes that even though agriculture is the largest industry in Riverside County in terms of dollar value, “agriculture faces continuing pressure from urbanization, foreign competition, and rising production costs” (COR GP FEIR, Section 4.2.1). The economic viability of agricultural areas is affected by weather, production costs, water prices, crop selection, management techniques, commodity prices, new technology, and proximity of developed lands (COR GP FEIR, Section 4.2.1). Consequently, the Riverside County General Plan Final EIR concludes that implementation of the County General Plan would result in a 32.5% loss of agricultural land and that the total amount of land designated for agricultural uses under the County General Plan (180,178 acres) is less than the amount of agricultural land currently designated as Important Farmlands (212,005 acres) (COR GP FEIR, p. 4.2-28).

Buildout of the Riverside County General Plan will also permit development of residential and employment generating uses adjacent to agricultural designated uses, resulting in indirect impacts to the non-agricultural uses such as dust, odors, noise, flies and other pests, potential groundwater contamination, and aerial application of chemicals. Buildout of the Riverside County General Plan will therefore increase the likelihood of having residential and other

community development uses in closer proximity to agricultural uses, further heightening the conflict between agricultural and non-agricultural uses (COR GP FEIR, p. 4.2-28).

Thus, given the projected decline of agricultural designated uses in the Riverside County General Plan area due to urbanization and the economic viability of long-term agricultural uses, the Final Program EIR determined there are no reasonable or feasible mitigation measures to reduce the significant impacts resulting from the loss of agricultural land to a less than significant level. Such impacts will inevitably occur even though implementation of the General Plan polices would encourage conservation of productive agricultural land (COR GP FEIR, p. 4.2-33).

Accordingly, reduction of the drainage facilities included in the Project to retain on-site agricultural uses that would otherwise be impacted by the buildout of the applicable General Plans (i.e., San Jacinto, Hemet, and Riverside County) would impede achievement of the goals and objectives set forth in the San Jacinto, Hemet, and Riverside County General Plans. Indeed, while these General Plans recognize the value of agriculture resources, they also acknowledge that the conversion of agricultural uses to non-agricultural uses is inevitable due to pressures from urbanization, competition, and other factors described above. For these reasons **on-site mitigation is infeasible**.

3.2.7.2 Feasibility of Off-Site Mitigation

There is no other comparable land planned for agricultural use within San Jacinto or Hemet that would offset the direct impacts from the Project's drainage facilities or indirect impacts from the conversion of agricultural uses in the Project area. Within the 55,339 acres in the San Jacinto Valley Area Plan, 8,678 acres are within the Agriculture Foundation Component (SJVAP, p. 19) of which 8,358 acres are outside of the Project area (Riverside County GIS Data).

Off-site mitigation is also problematic for similar reasons as on-site mitigation related to the economic viability of large-scale agriculture in the long term and increasing urbanization. In addition, off-site mitigation would conflict with General Plan goals and policies, which recognize that buildout of the General Plans will result in incompatibility between agricultural uses and urban uses. Off-site mitigation conflicts with the need to plan for the eventual conversion of these areas into urban uses while allowing for the benefits of agricultural areas to remain in the interim.

3.2.7.3 Conclusion

Drainage facilities included in the Project and development in the Project area will be consistent with the land use designations in the San Jacinto, Hemet, and Riverside County General Plans. Thus, both on-site and off-site mitigation are infeasible due to the economic viability of large-scale agriculture and would conflict with the goals and policies of these General Plans.

Property owner cooperation, substantial financial incentives, and agricultural preservation programs (such as voluntary Williamson Act contracts, private land trusts, agricultural land mitigation banks, and conservation easements) could reduce the Project's impacts to agricultural uses. These measures would, at most, prevent future conversion of farmland to non-agricultural use, but they would not create farmland where it does not currently exist. These measures would

not prevent conversion of farmland already projected in the San Jacinto, Hemet, and Riverside County General Plans and facilitated by the Project's drainage facilities. Therefore, **Project impacts with respect to agricultural resources would remain significant and a Statement of Overriding Considerations would be required prior to Project approval.**

3.2.8 Summary of Environmental Effects After Mitigation Measures Are Implemented

Direct impacts to agricultural land in the Project area include the conversion of 15 acres of Important Farmland and 6.3 acres of Farmland of Local Importance associated with the construction of the four basins identified in the SJV-MDP and approximately 12 acres of Prime Farmland, 80 acres of Important Farmland, and 30 acres of Farmland of Local Importance associated with the construction of drainage channels. The Project provides a master plan and funding mechanism for drainage facilities that could support future urbanization as set forth in the San Jacinto, Hemet, and Riverside County General Plans and could result in the indirect conversion of Important Farmland. As discussed in Section 3.2.7, even with property owner cooperation, substantial financial incentives, and agricultural conservation programs intended to foster the short-term benefits of agricultural uses, it is unlikely that long-term agricultural production would be economically viable in the Project area, with or without the Project. Therefore, on-site and off-site mitigation is infeasible. **Direct and indirect project impacts would remain significant and a Statement of Overriding Considerations would be required prior to Project approval.**

3.3 AIR QUALITY

Potential impacts related to:

- the Project’s consistency with applicable air quality plans and
- creation of objectionable odors affecting a substantial number of people were found to be less than significant in the Initial Study/NOP prepared for the proposed Project (Appendix A). The focus of the following discussion is related to the Project’s:
- compliance with air quality standards,
- cumulative increases of criteria air pollutants, and
- exposure of sensitive receptors to substantial pollutant concentrations.

The Air Quality Impact Analysis (AQIA) prepared for the Project, which is included in Appendix B of the Draft EIR, evaluated whether the expected criteria air pollutant emissions generated as a result of construction and long-term operations (i.e., vehicle emissions) of the proposed Project would cause significant impacts to air resources in the Project area. The Air Quality Impact Analysis (AQIA) was conducted within the context of the CEQA (California Public Resources Code Sections 21000 *et seq.*). The methodology follows the *CEQA Air Quality Handbook* (1993) prepared by the South Coast Air Quality Management District (SCAQMD) for quantification of emissions and evaluation of potential impacts to air resources. As recommended by SCAQMD staff, the URBEMIS 2007 for Windows version 9.2.4 computer program was used to quantify Project-related emissions. In addition, the AQIA includes emissions estimates from Project-generated greenhouse gases (GHG) during both construction and operation.

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3.3.1 Setting

3.3.1.1 Physical Setting

The proposed Project is located within the South Coast Air Basin (SCAB or Basin), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAB consists of Orange County, the coastal and mountain portions of Los Angeles County, as well as, Riverside and San Bernardino counties. Regional and local air quality within the SCAB is affected by topography, atmospheric inversions, and dominant onshore flows. Topographic features such as the San Gabriel, San Bernardino, and San Jacinto Mountains form natural horizontal barriers to the dispersion of air contaminants. The presence of atmospheric inversions limits the vertical dispersion of air pollutants. With an inversion, the temperature initially follows a normal pattern of decreasing temperature with increasing altitude; however, at some elevations, the trend reverses and temperature begins to increase as altitude increases. This transition to increasing temperature establishes the effective mixing height of the atmosphere and acts as a barrier to vertical dispersion of pollutants.

Dominant onshore flow provides the driving mechanism for both air pollution transport and pollutant dispersion. Air pollution generated in coastal areas is transported east to inland receptors by the onshore flow during the daytime until a natural barrier (the mountains) is confronted, limiting the horizontal dispersion of pollutants. The result is a gradual degradation of air quality from coastal areas to inland areas, which is most evident with the photochemical pollutants such as ozone formed under reactions with sunlight.

3.3.1.2 Climate

Terrain and geographical location determine climate in the SCAB. The Project site lies within the terrain south of the San Gabriel and San Bernardino Mountains and north of the Santa Ana Mountains. The climate in the SCAB is typical of southern California's Mediterranean climate, which is characterized by dry, warm summers and mild winters. Winters typically have infrequent rainfall, light winds, and frequent early morning fog and clouds that turn to hazy afternoon sunshine.

The following includes factors that govern micro-climate differences among inland locations within the SCAB:

- 1) the distance of the mean air trajectory from the site to the ocean;

- 2) the site elevation;
- 3) the existence of any intervening terrain that may affect airflow or moisture content; and
- 4) the proximity to canyons or mountain passes.

As a general rule, locations farthest inland from the ocean have the hottest summer afternoons, the lowest rainfall, and the least amount of fog and clouds. Foothill communities in the SCAB have greater levels of precipitation, cooler summer afternoons and may be exposed to wind funneling through nearby canyons during Santa Ana winds. Terrain will generally steer local wind patterns. The proposed SJV-MDP is located in portions of the cities of San Jacinto and Hemet, and unincorporated Riverside County within the eastern portion of the SCAB.

3.3.1.3 Precipitation and Temperature

Annual average temperatures in the SCAB are typically in the low to mid-60s (degrees Fahrenheit). Temperatures above 100 degrees are recorded for all portions of the SCAB during the summer months.

The rainy season in the SCAB is November to April. Summer rainfall can occur as widely scattered thunderstorms near the coast and in the mountainous regions in the eastern SCAB. Rainfall averages vary over the SCAB. The city of Riverside averages 9 inches of rainfall, while the city of Los Angeles averages 14 inches. Rainy days vary from 5 to 10 percent of all days in the SCAB, with the most frequent occurrences of rainfall near the coast.

3.3.1.4 Winds

The interaction of land (offshore) and sea (onshore) breezes control local wind patterns in the area. Daytime winds typically flow from the coast to the inland areas, while the pattern typically reverses in the evening, flowing from the inland areas to the ocean. Air stagnation may occur in the early evening and early morning during periods of transition between day and nighttime flows.

Approximately 5 to 10 times a year, the Project area experiences strong, hot, dry desert winds, which are known as the Santa Ana winds. These winds, associated with atmospheric high pressure, originate in the upper deserts and are channeled through the passes of the San Bernardino Mountains and into the inland valleys. Santa Ana winds can last for a period of hours or days, and gusts of over 60 mph have been recorded.

High winds, such as the Santa Ana winds, affect dust generation characteristics and create the potential for off-site air quality impacts, especially with respect to airborne nuisance and particulate emissions. Local winds in the Project area are also an important meteorological parameter because they control the initial rate of dilution of locally generated air pollutant emissions.

3.3.1.5 Categories of Emission Sources

Air pollutant emissions sources are typically grouped into two categories: stationary and mobile sources. These emission categories are defined and discussed in the following subsections.

Stationary Sources

Stationary sources are divided into two major subcategories: point and area sources. Point sources consist of a single emission source with an identified location at a facility. A single facility could have multiple point sources located on site. Stationary point sources are usually associated with manufacturing and industrial processes. Examples of point sources include boilers or other types of combustion equipment at oil refineries, electric power plants, etc. Area sources are small emission sources that are widely distributed, but are cumulatively substantial because there may be a large number of sources. Examples include residential water heaters; painting operations; lawn mowers; agricultural fields; landfills; and consumer products, such as barbecue lighter fluid and hair spray.

Mobile Sources

Mobile sources are motorized vehicles, which are classified as either on-road or off-road. On-road mobile sources typically include automobiles and trucks that operate on public roadways. Off-road mobile sources include aircraft, ships, trains, and self-propelled construction equipment that operate off public roadways. Mobile source emissions are accounted for as both direct source emissions (those directly emitted by the individual source) and indirect source emissions, which are sources that by themselves do not emit air contaminants but indirectly cause the generation of air pollutants by attracting vehicles. Examples of indirect sources include office complexes, commercial and government centers, sports and recreational complexes, and residential developments.

3.3.1.6 Air Pollution Constituents

Criteria Pollutants

Air pollutants are classified as either primary, or secondary, depending on how they are formed. Primary pollutants are generated daily and are emitted directly from a source into the atmosphere. Examples of primary pollutants include carbon monoxide (CO), nitrogen dioxide (NO₂) and nitric oxide (NO)—collectively known as oxides of nitrogen (NO_x), sulfur dioxide (SO₂), particulates (PM-10 and PM-2.5) and various hydrocarbons (HC) or volatile organic compounds (VOC), which are also referred to as reactive organic gases (ROG). The predominant source of air emissions generated by the Project is expected to be vehicle emissions. Motor vehicles primarily emit CO, NO_x, and VOC/ROG/HC.

Secondary pollutants are created over time and occur within the atmosphere as chemical and photochemical reactions take place. An example of a secondary pollutant is ozone (O₃), which is one of the products formed when NO_x reacts with HC, in the presence of sunlight. Other secondary pollutants include photochemical aerosols. Secondary pollutants such as ozone represent major air quality problems in the SCAB.

The Federal Clean Air Act of 1970 established the National Ambient Air Quality Standards (NAAQS). Six “criteria” air pollutants were identified using specific medical evidence available at that time, and NAAQS were established for those chemicals. The State of California has adopted the same six chemicals as criteria pollutants, but has established different allowable

levels. The six criteria pollutants are: carbon monoxide, nitrogen dioxide, ozone, lead, particulates less than 10 microns in size, and sulfur dioxide. The following is a further discussion of the *criteria pollutants*, as well as volatile organic compounds.

- **Carbon Monoxide (CO)** – A colorless, odorless toxic gas produced by incomplete combustion of carbon-containing substances. Concentrations of CO are generally higher during the winter months when meteorological conditions favor the build-up of primary pollutants. Automobiles are the major source of CO in the Basin, although various industrial processes also emit CO through incomplete combustion of fuels. In high concentrations, CO can cause serious health problems in humans by limiting the red blood cells' ability to carry oxygen (SCAQMD 1993).
- **Oxides of Nitrogen (NO_x)** – Those that are important in air pollution are NO and NO₂. NO is a colorless, odorless gas formed by a combination of nitrogen and oxygen when combustion takes place under high temperatures and pressures. NO₂ is a reddish-brown gas formed by the combination of NO with oxygen. Combustion in motor vehicle engines, power plants, refineries and other industrial operations, as well as ships, railroads, and aircraft are the primary sources of NO_x. NO₂ at atmospheric concentrations is a potential irritant that can cause coughing in healthy people; can alter respiratory responsiveness and pulmonary functions in people with preexisting respiratory illness; and potentially lead to increased levels of respiratory illness in children (EPA 2005).
- **Ozone (O₃)** – A colorless, toxic gas that irritates the lungs and damages materials and vegetation. During the summer's long daylight hours, plentiful sunshine provides the energy needed to fuel photochemical reactions between NO₂ and VOC which result in the formation of O₃. Conditions that lead to high levels of O₃ are adequate sunshine, early morning stagnation in source areas, high surface temperatures, strong and low morning inversions, greatly restricted vertical mixing during the day, and daytime subsidence that strengthens the inversion layer (all of which are characteristic of western Riverside County). Ozone represents the worst air pollution-related health threat in the Basin as it affects people with preexisting respiratory illness, as well as, reduces lung function in healthy people. Studies have shown that children living within the Basin experience a 10–15 percent reduction in lung function (SCAQMD 1993).
- **Atmospheric Particulate Matter (PM)** – Made up of fine solid and liquid particles, such as soot, dust, aerosols, fumes, and mists. PM-10 consists of particulate matter that is 10 microns or less in diameter, and PM-2.5 consists of particulate matter of 2.5 microns or less in size. Both PM-10 and PM-2.5 can be inhaled into the deepest part of the lung, attributing to health effects. The presence of these fine particles by themselves cause lung damage and interfere with the body's ability to clear its respiratory tract. Said particles can also act as a carrier of other toxic substances (SCAQMD 1993). The sources contributing to particulate matter pollution include: road dust, windblown dust, agriculture, construction, fireplaces and wood burning stoves, and vehicle exhaust. Specifically, SCAQMD data indicates that the largest component of PM-10 particles in the area comes from dust (unpaved roads, unpaved yards, agricultural lands, and vacant land that has been disked). PM-2.5 particles are mostly manmade particles resulting from combustion sources. According to SCAQMD, one component of PM-2.5 pollution in Riverside comes from ammonium nitrate (NH₄NO₃)

particulates. NO_x , emitted throughout the SCAB by vehicles, reacts with ammonia produced from livestock and horses to form ammonium nitrate. Organic carbon particles generated from paints, degreasers, and vehicles are another component of PM-2.5 pollution. The last notable constituent of PM-2.5 sources is elemental carbon, which is used as a surrogate for diesel particulates.

- **Sulfur dioxide (SO_2)** – A colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. SO_2 can result in temporary breathing impairment in asthmatic children and adults engaged in active outdoor activities. When combined with PM, SO_2 can cause symptoms such as shortness of breath and wheezing; and, with long-term exposure, it can lead to the exacerbation of existing cardiovascular disease and respiratory illnesses (EPA 2005). Although SO_2 concentrations have been reduced to levels well below state and federal standards, further reductions in SO_2 emissions are needed because SO_2 is a precursor to sulfate and PM-10.
- **Lead (Pb)** – Lead concentrations once exceeded the state and federal air quality standards by a wide margin, but have not exceeded state or federal air quality standards at any regular monitoring station since 1982. Health effects associated with lead include neurological impairments, mental retardation, and behavioral disorders. At low levels, lead can damage the nervous systems of fetuses and result in lowered IQ levels in children (EPA 2005). Though special monitoring sites immediately downwind of lead sources recorded very localized violations of the state standard in 1994, no violations have been recorded at these stations since 1996. Unleaded gasoline has greatly contributed to the reduction in lead emissions in the Basin. Since the proposed Project will not involve leaded gasoline, or other sources of lead emissions, this criteria pollutant is not expected to be a factor with Project implementation.
- **Reactive Organic Gases/Volatile Organic Compounds (ROG/VOC)** – It should be noted that there are no state or federal ambient air quality standards for VOCs because they are not classified as criteria pollutants. VOCs are regulated; however, a reduction in VOC emissions reduces certain chemical reactions, which contribute to the formation of ozone. VOCs are also transformed into organic aerosols in the atmosphere, contributing to higher PM-10 and lower visibility levels. Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations of VOC because of interference with oxygen uptake. In general, ambient VOC concentrations in the atmosphere, even at low concentrations, are suspected to cause coughing, sneezing, headaches, weakness, laryngitis, and bronchitis. Some hydrocarbon components classified as VOC emissions are thought or known to be hazardous. Benzene, for example, is a hydrocarbon component of VOC emissions that is known to be a human carcinogen.

3.3.1.7 Toxic Air Contaminants

Toxic air contaminants (TACs) are chemicals generally referred to as “non-criteria” air pollutants which are known or suspected to cause serious health problems, but do not have a corresponding ambient air quality standard. There are hundreds of air toxics; and, exposure to these pollutants can cause or contribute to cancer or non-cancer health effects such as birth defects, genetic damage, and other adverse health effects. Effects may be both chronic (i.e., of long duration) or acute (i.e., severe but of short duration) on human health. Acute health effects

are attributable to sudden exposure to high quantities of air toxics. These effects can include nausea, skin irritation, respiratory illness, and, in some cases, death. Chronic health effects usually result from low-dose, long-term exposure from routine releases of air toxics. The effect of major concern for this type of exposure is cancer, which typically requires a latency period of 10–30 years after exposure to develop.

In 2000, the SCAQMD released the Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-II). The monitoring portion of MATES-II was designed to measure numerous air toxic compounds at different locations in the Basin in order to establish a baseline of existing air toxic ambient concentrations, as well as risk level data; and to assist in the assessment of modeling performance accuracy. Ten sites were selected and air samples were collected for up to one year. The ten locations are in Anaheim, Burbank, Compton, Fontana, Huntington Park, Long Beach, Los Angeles, Pico Rivera, Rubidoux, and Wilmington. Rubidoux is the nearest monitoring site and is approximately twelve miles northeast of the proposed project.

In January 2008, the SCAQMD released the Draft Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-III). The draft report was in a 90-day public review with a comment period, which ended April 4, 2008. The Final report was released in September 2008. The ten monitoring sites listed above remained the same for the MATES-III study, with the exception of the Wilmington Station moving 2.5 miles east.

Diesel Emissions

Diesel engines utilize compression, contrary to standard gasoline engines which use conventional spark plugs, to ignite fuel. Engines that use compression typically run at higher temperatures than gasoline engines, thereby causing the oxygen and nitrogen present in air during intake, to form oxides of nitrogen (NO_x). To combat NO_x production in a diesel engine, the engine temperature can be reduced however, increased amounts of particulate matter (PM) and hydrocarbons (HC) are produced as byproducts of the now uncombusted fuel. Hydrocarbons, once in the atmosphere, react with NO_x to produce ozone (O_3), among other pollutants.

Diesel exhaust composition is dependent on many factors: fuel composition, engine type, lubricating oils, and emission control systems. Diesel exhaust is a complex mixture of thousands of gases and fine particles. The gaseous fraction of diesel exhaust is comprised of typical combustion gases such as oxygen, carbon dioxide, nitrogen, and water vapor. However, air pollutants such as carbon monoxide, sulfur oxides (SO_x), nitrogen oxides (NO_x), volatile hydrocarbons, and low-molecular weight polycyclic aromatic hydrocarbons (PAH) and PAH-derivatives are also components of the gaseous fraction. Additionally, some of the gaseous components, such as benzene, are known carcinogens.

The particle fraction of diesel exhaust is comprised of aggregates of carbon particles with inorganic and organic substances adhered to them. The inorganic fraction of diesel exhaust particles consists of solid carbon (or elemental carbon) particles ranging in size from 0.01 to 0.08 microns in diameter. The organic fraction consists of soluble organic compounds such as aldehydes, alkanes, alkenes, PAH, and PAH derivatives. The total component of a diesel particle

(inorganic + organic) is in the fine particle range of 10 microns in size or less (width of a human hair), but 92 percent of these diesel particles are even smaller, at less than 1 micron in diameter.

Diesel particles can remain airborne for up to 10 days because of their small size. Therefore, they do not fall out or precipitate easily, and remain an air quality problem for some time after being emitted. Scientists use elemental carbon as a surrogate since there is no current technology available to monitor directly for diesel particles. The addition of diesel particulate toxicity dramatically increases carcinogenic risk. The MATES-III study modeled cancer risk¹ for diesel particulates for the Perris site at approximately 470 cases of cancer per one million people. This cancer risk is what residents are currently exposed to in that portion of the Basin. The Perris Station location is less than a quarter-mile southeast of Interstate 215 and approximately ten miles south of SR-60. Therefore, the Perris Station is approximately 16 miles east of the project area. In addition to the results for the specified monitoring sites, the MATES-III document also shows the estimated regional cancer risk for the entire Basin. It shows that the area surrounding the project site has a modeled cancer risk approximately 299 cases of cancer per one million people. Therefore, existing conditions in the project area are less impacted by diesel emissions as opposed to the area surrounding the Perris Monitoring Station.

It is important to understand that the cancer risks estimated by the California Air Resources Board (CARB) related to mobile-source diesel exhaust and health risk assessment studies represent the probability that a person develops cancer; the estimated risks do not represent mortality rates. Also that this project consists of a Master Drainage Plan and, as such, is not a land use (such as an industrial park) that generates or attracts vehicular trips from heavy-duty diesel-fueled vehicles. Due to the low frequency of use (once or twice a year), emissions from maintenance vehicles used during debris cleaning from the channels and basins are considered negligible; therefore, a Health Risk Assessment was not performed for this project.

3.3.1.8 Greenhouse Gases and Global Climate Change

Some gases in the atmosphere affect the Earth's heat balance by absorbing infrared radiation. This layer of gases in the atmosphere functions much the same as glass in a greenhouse (i.e., both prevent the escape of heat). This is why global warming is also known as the "greenhouse effect." Increased emissions of these gases, due to combustion of fossil fuels and other activities, have increased the greenhouse effect, leading to global warming and other climate changes. Gases responsible for global climate change in the SCAB and their relative contribution to the overall warming effect are CO₂ (55 percent), CFCs (24 percent), methane (15 percent), and N₂O (6 percent) (SCAQMD 2005).

It is widely accepted that continued increases in greenhouse gases (GHG) will contribute to global climate change although there is uncertainty concerning the magnitude and timing of future emissions and the resultant warming trend (SCAQMD 2005). Human activities associated with industrial/manufacturing, utilities, transportation, residential, and agricultural sectors contribute to GHG emissions (CEC 2006a). According to the California Energy Commission (CEC), transportation was responsible for 41 percent of the state's GHG emissions, followed by

¹ Cancer risk represents the number of estimated cancer cases that will occur among residents in this portion of the basin.

electricity generation in 2004 (CEC 2006a). More recently, CARB reported that transportation was 38 percent of the state's GHG emissions, followed by electricity generation in 2004 (CARB 2007). Emissions of CO₂ and N₂O are byproducts of fossil fuel combustion. Methane, a highly potent GHG, results from off-gassing associated with agricultural practices, landfills, and wastewater treatment.

GHG and ozone-depleting gases include, but are not limited to, the following:

- **Carbon dioxide (CO₂)** – Carbon dioxide results from fossil fuel combustion in stationary and mobile sources. It contributes to the greenhouse effect, but not to stratospheric ozone depletion. In 2004, CO₂ accounted for approximately 84 percent of total GHG emissions in the state (CEC 2006a). In the Basin, approximately 48 percent of CO₂ emissions come from transportation, residential, and utility sources, which contribute approximately 13 percent each; 20 percent come from industry, and the remainder comes from a variety of other sources (SCAQMD 2005).
- **Methane** – Atmospheric methane is emitted from both non-biogenic and biogenic sources. Non-biogenic sources include fossil fuel mining and burning, biomass burning, waste treatment, geologic sources, and leaks in natural gas pipelines. Biogenic sources include wetlands, rice agriculture, livestock, landfills, forest, oceans, and termites. Methane sources can also be divided into anthropogenic and natural. Anthropogenic sources include rice agriculture, livestock, landfills, waste treatment, some biomass burning, and fossil fuel combustion. Natural sources are wetlands, oceans, forests, fire, termites, and geological sources. Anthropogenic sources currently account for more than 60 percent of the total global emissions. It is a greenhouse gas and traps heat 40–70 times more effectively than carbon dioxide. (SCAQMD 2005) In the Basin, more than 50 percent of human-induced methane emissions come from natural gas pipelines, while landfills contribute 24 percent. Methane emissions from landfills are reduced by SCAQMD Rule 1150.1 – Control of Gaseous Emissions from Active Landfills. Methane emissions from petroleum sources are reduced by a number of rules in SCAQMD Regulation XI that control fugitive emissions from petroleum production, refining, and distribution (SCAQMD 2005).
- **Other regulated greenhouse gases include Nitrous Oxide, Sulfur Hexafluoride, Hydrofluorocarbons, and Perfluorocarbons** – These gases all possess heat-trapping potentials hundreds to thousands of times more effective than carbon dioxide. Emission sources of N₂O gases include, but are not limited to, waste combustion, wastewater treatment, fossil fuel combustion, and fertilizer production. Because the volume of emissions is small, the net effect of N₂O emissions relative to CO₂ or methane is relatively small. Sulfur hexafluoride, hydrofluorocarbon, and perfluorocarbon emissions occur at even lower rates.
- **Chlorofluorocarbons (CFCs)** – CFCs are emitted from blowing agents used in producing foam insulation. They are also used in air conditioners and refrigerators and as solvents to clean electronic microcircuits. CFCs are primary contributors to stratospheric ozone depletion and to global warming. Sixty-three percent of CFC emissions in the Basin come from the industrial sector. Federal regulations require service practices that maximize recycling of ozone-depleting compounds (both CFCs, hydro-chlorofluorocarbons, and their blends) during the servicing and disposal of air-conditioning and refrigeration equipment.

SCAQMD Rule 1415 – Reduction of Refrigerant Emissions from Stationary Refrigeration and Air Conditioning Systems requires CFC refrigerants to be reclaimed or recycled from stationary refrigeration and air conditioning systems. SCAQMD Rule 1405 – Control of Ethylene Oxide and Chlorofluorocarbon Emissions from Sterilization or Fumigant Processes requires recovery of reclamation of CFCs at certain commercial facilities and eliminates the use of some CFCs in the sterilization processes. Some CFCs are classified as TACs and regulated by SCAQMD Rule 1401 – New Source Review of Toxic Air Contaminants and SCAQMD Rule 1402 Control of Toxic Air Contaminants from Existing Sources.

- **Halons** – These compounds are used in fire extinguishers and behave as both ozone-depleting and greenhouse gases. Halon production ended in the United States in 1993. SCAQMD Rule 1418 – Halon Emissions from Fire Extinguishing Equipment requires the recovery and recycling of halons used in fire extinguishing systems and prohibits the sale of halon in small fire extinguishers.
- **Hydro-chlorofluorocarbons (HCFC)** – HCFCs are solvents, similar in use and chemical composition to CFCs. The hydrogen component makes HCFCs more chemically reactive than CFCs, allowing them to break down more quickly in the atmosphere. These compounds deplete the stratospheric ozone layer, but to a much lesser extent than CFCs. HCFCs are regulated under the same SCAQMD rules as CFCs.
- **1,1,1-trichloroethane (TCA)** – TCA (methyl chloroform) is a solvent and cleaning agent commonly used by manufacturers. It is less destructive on the environment than CFCs or HCFCs, but its continued use will contribute to global warming and ozone depletion. TCA is a synthetic chemical that does not occur naturally in the environment. No TCA is supposed to be manufactured for domestic use in the United States after January 1, 2002 because it affects the ozone layer. TCA had many industrial and household uses, including use as a solvent to dissolve other substances, such as glues and paints; to remove oil or grease from manufactured metal parts; and as an ingredient of household products such as spot cleaners, glues, and aerosol sprays. SCAQMD regulates this compound as a toxic air contaminant under Rules 1401 and 1402.

Effects of Global Climate Change

As emissions of GHGs increase, temperatures in California are projected to rise significantly over the twenty-first century. The modeled magnitudes of the warming vary because of uncertainties in future emissions and in the climate sensitivity. According to the California Climate Change Center (CEC 2005), there are three projected warming scenarios referred to as the low, medium, and high range. These expected increases from 2000 to 2100 vary from approximately 1.7°C–3.0°C (3.0°F–5.4°F) in the lower range of projected warming, 3.1°C–4.3°C (5.5°F–7.8°F) in the medium range, and 4.4°C–5.8°C (8.0°F–10.4°F) in the higher range. To comprehend the magnitude of these projected temperature changes over the next century, the lower range of projected temperature rise is slightly larger than the difference in annual mean temperature between Monterey and Salinas which is 2.5°F; and, the upper range of projected warming is greater than the temperature difference between San Francisco and San Jose which is 7.4°F.

On Water Bodies

Other resource areas could be affected as a result of GHGs. For example, increased global average temperature will cause increases to ocean temperatures; and, the Pacific Ocean strongly influences the climate within California. As the temperature of the ocean warms, it is anticipated that rain will fall instead of snow in the Sierra Nevada during the wet season. Snowpack in the Sierra Nevada provides both water supply (runoff) and storage (within the snowpack before melting), which is a major source of supply for the state. According to a California Energy Commission report, the snowpack portion of the supply could potentially decline by 70–90 percent by the end of the 21st century (CEC 2006b). This phenomenon could lead to significant challenges securing an adequate water supply for a growing population.

On Land

Another impact of global warming is increased fire hazard. Fire is an important natural disturbance within many California ecosystems that promotes vegetation and wildlife diversity, releases nutrients, and eliminates heavy fuel accumulations that can lead to catastrophic burns. The changing climate could alter fire regimes in ways that could have social, economic, and ecological consequences. As the existing climate throughout California changes over time, mass migration of species, or worse, failure of species to migrate in time to adapt to the changes in climate, could also result.

Many factors contribute to an area being at risk of structural fire in terms of the local fire departments' capabilities to control them, including the construction size and type, built-in protection, density of construction, street widths, and occupancy size. The proposed Project is located within an area designated as having a high susceptibility for wildfires (*San Jacinto Valley Area Plan*, Figure 11); however, the Project includes the construction and maintenance of storm water conveyance facilities and detention basins, which will not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

Due to its weather, topography, and native vegetation, nearly all of southern California is at some risk from wildland fires also called wildfires. The extended droughts characteristic of California's Mediterranean climate result in large areas of dry vegetation that provide fuel for wildland fires which can spread into urban areas. Wildland-urban fires occur when a fire burning in wildland vegetation gets close enough to ignite urban structures. Areas of dense, dry vegetation, particularly in canyon areas and hillsides, pose the greatest wildland fire potential.

Conservative estimates indicate that the risk of large statewide wildfires, characterized as approximately 500 acres, would rise almost 35 percent by 2050 and 55 percent by 2100 under the medium temperature described previously. Under the low warming range, the increased risk of wildfires is nearly cut in half (CEC 2005).

On People

Wildfires affect public safety and have the potential to significantly impact public health through smoke inhalation. The projected increases in fire season severity could lead to more "bad air"

days. However, quantitative estimation of the impacts of future wildfire events is extremely difficult. The impacts of any fire are unique to that event, and are influenced not only by the magnitude, intensity, and duration of the fire, but also the proximity of the smoke plume to a population (CEC 2005).

Climate change will affect the health of Californians by increasing the frequency, duration, and intensity of ambient conditions conducive to air pollution formation, oppressive heat, and wildfires. Not only are average temperatures expected to increase, but the projected increase in extreme temperatures is also expected to increase which can cause the most serious health impacts. The modeled warming scenarios indicate that the number of extremely hot and extremely cold days will increase by 2100. For Riverside/San Bernardino metropolitan areas, the number of extremely hot days will increase approximately 40 to 80 days per year under the lower and higher warming scenarios, respectively. Recent studies suggest that no capacity for future adaptation to extreme heat is seen in San Bernardino/Riverside metropolitan areas. The results for the San Bernardino/Riverside metropolitan areas actually indicate increased sensitivity during the hottest summers, which is counterintuitive to what might be expected in hot inland urban areas. Current investigations are underway seeking alternative explanations by taking greater account of socioeconomic factors (such as the availability of air conditioning, age structure of the population, and the housing stock) that might explain these non-intuitive results. If, for example, the San Bernardino/Riverside metropolitan area has a lesser proportion of air-conditioned residents than other hot inland urban areas, increased heat could create an indoor environment that is almost intolerable and could lead to greater numbers of deaths. It is clear that a thorough investigation of these socio-economic issues is necessary to understand the increased sensitivity of San Bernardino/Riverside metropolitan area residents to heat during the hottest summers (CEC 2006c).

Emissions of GHGs

Unlike criteria air pollutants and TACs, which are pollutants of regional and local concern, global warming is a global problem and GHGs are global pollutants. Impacts of GHG emissions are a function of their total atmospheric concentration and most GHGs are globally well mixed atmospheric constituents. This means that the location of a particular GHG emission, in contrast to the situation for criteria pollutants, does not change its environmental impact.

Worldwide, California is the 12th to 16th largest emitter of CO₂, and is responsible for approximately two percent of the world's CO₂ emissions (CEC 2006a). In 2004, the most recent year for which statewide data is available, the CEC reported that California produced 492 million gross Mt (one Mt equals 2,205 pounds) of carbon dioxide-equivalent (CEC 2006a).

GHG Regulation

In January 2007, Assembly Bill (AB) 1803 transferred responsibility for developing and maintaining the state's GHG inventory from the CEC to CARB. Using the CEC GHG inventory as a starting point, CARB staff determined the state's 1990 GHG emissions level by conducting a comprehensive review of all GHG emitting sectors. The seven sectors are: Transportation, Electricity Generation, Industrial, Residential, Agriculture, Commercial, and Forestry.

In November 2007, CARB released its staff report establishing a statewide 1990 GHG emission level and a 2020 emission limit (CARB 2007). As part of this staff report, CARB staff recommended an amount of 427 million Mt of carbon dioxide equivalent (MMT_{CO₂e}) as the total statewide GHG 1990 emissions level and 2020 emissions limit. The Board approved the 2020 limit on December 6, 2007. This limit is an aggregated statewide limit, rather than sector- or facility-specific. The staff report also included the statewide GHG emissions for 2004, which were 480 MMT_{CO₂e}.

While the inventory data numbers from the CEC and CARB are similar for 2004, these estimates have important differences. Emissions from individual sectors differ between CEC and CARB estimates by up to 30 percent due to updated data, methodologies, and differences in included and excluded emissions. Staff at CARB treated carbon stored in landfills differently than CEC by separately tracking stored carbon instead of considering it an emission sink within a landfill. In addition, the CARB estimate only includes intrastate aviation, whereas the CEC estimates include both interstate and intrastate flights. Staff also included emissions from international shipping and related port activities in California waters, whereas the CEC excluded all emissions from international ships.

3.3.1.9 Monitored Air Quality

The Project area is located within SCAQMD Source Receptor Area (SRA) 28. However, after 1996, no monitoring was done in SRA 28; therefore, the data for the monitoring station with similar meteorological conditions, in SRA 25 (Lake Elsinore), is shown instead. SRA 25 does not monitor SO₂, PM-10, or PM-2.5. Data for these pollutants was taken from neighboring stations in either SRA 23 (Rubidoux) or SRA 24 (Perris Valley). The most recent published data for SRA 25 is presented in **Table 3.3-A, Air Quality Monitoring Summary – 1998–2007 (SRA 25)**. This data indicates that the baseline air quality conditions in the Project area include occasional events of very unhealthy air. However, the frequency of smog alerts has dropped significantly in the last decade. Ozone and particulates are the two most significant air quality concerns in the Project area. The yearly monitoring records document that prior to 1998, approximately one-third or more of the days each year experienced a violation of the state hourly ozone standard, with around ten days annually reaching first stage alert levels of 0.20 parts per million (ppm) for one hour. It is encouraging to note that ozone levels have dropped significantly in the last few years with approximately one-fourth or less days each year experiencing a violation of the state hourly ozone standard since 1998. Locally, no second stage alert (0.35 ppm/hour) has been called by SCAQMD in the last twenty years. In fact, the last second stage alert was in Upland in 1988.

CARB established a new 8-hour average California ozone standard of 0.07 ppm, effective May 17, 2006. The federal 1-hour ozone standard was revoked and replaced by the 8-hour average ozone standard of 0.08 ppm effective June 2005. The federal 8-hour ozone standard was recently revised from 0.08 ppm to 0.075 ppm and became effective on May 27, 2008.

The California NO₂ standards were amended and approved by CARB on February 23, 2007, which lowered the 1-hour standard from 0.25 ppm to 0.18 ppm and established a new annual standard of 0.030 ppm. However, these standards only become effective once the California

Office of Administrative Law (OAL) approves them. The proposed regulation to change the NO₂ standards was sent to the OAL in January 2008 and approved on February 19, 2008. The new standards became effective on March 20, 2008.

Monitoring for PM-2.5 did not begin until 1999. Since then, the annual standard has been consistently exceeded as shown in **Table 3.3-A**. The 1997 federal annual average standard for PM-2.5 (15 µg/m³) was upheld by the U.S. Supreme Court in February 2001. Effective in December 2006, the federal 24-hour PM-2.5 standard was revised from 65 µg/m³ to 35 µg/m³. The state annual average standard for PM-2.5 (12 µg/m³) was finalized in 2003 and became effective on July 5, 2003. Additionally, the federal annual PM-10 standard was revoked in December 2006.

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Table 3.3-A, Air Quality Monitoring Summary (SRA 25) – 1998–2007

	Pollutant/Standard Source: SCAQMD	Monitoring Year									
		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
No. Days Exceeded	Ozone:										
	Health Advisory - 0.15 ppm	--	--	--	1	0	2	0	1	0	0
	California Standard:										
	1-Hour - 0.09 ppm	52	51	45	61	52	50	41	37	40	26
	8-Hour - 0.070 ppm ^a	--	--	--	--	--	--	51	46	58	55
	Federal Primary Standards:										
	1-Hour - 0.12 ppm	22	4	1	12	6	7	2	4	3	3
	8-Hour - 0.08 ppm (0.075 ppm) ^a	44	37	31	46	44	35	21	15	24	19(35)
Max 1-Hour Conc. (ppm)	0.17	0.14	0.13	0.151	0.139	0.154	0.13	0.149	0.14	0.130	
Max 8-Hour Conc. (ppm)	0.14	0.13	0.109	0.120	0.114	0.137	0.12	0.119	0.109	0.108	
No. Days Exceeded	Carbon Monoxide:										
	California Standard:										
	1-Hour - 20 ppm	--	--	0	0	0	0	0	0	0	0
	8-Hour - 9.0 ppm	--	--	0	0	0	0	0	0	0	0
	Federal Primary Standards:										
	1-Hour - 35 ppm	--	--	0	0	0	0	0	0	0	0
	8-Hour - 9.0 ppm	--	--	0	0	0	0	0	0	0	0
	Max 1-Hour Conc. (ppm)	--	--	4	2	3	4	2	2	1	2
Max 8-Hour Conc. (ppm)	--	--	2.0	2.0	2.0	1.3	0.9	1.0	1.0	2.3	
No. Days Exceeded	Nitrogen Dioxide:										
	California Standard:										
	1-Hour - 0.18 ppm	0	0	0	0	0	0	0	0	0	0
	Federal Standard:										
Annual Arithmetic Mean (ppm) ^b	0.017	0.020	0.018	0.019	0.017	0.018	0.015	0.014	0.015	0.017	
Max. 1-Hour Conc. (ppm)	0.09	0.11	0.08	0.09	0.07	0.08	0.06	0.07	0.07	0.06	
No. Days Exceeded	Sulfur Dioxide^c:										
	California Standards:										
	1-Hour – 0.25 ppm	0	0	0	0	0	0	0	0	0	0
	24-Hour – 0.04 ppm	0	0	0	0	0	0	0	0	0	0
	Federal Primary Standards:										
	24-Hour – 0.14 ppm	0	0	0	0	0	0	0	0	0	0
	Annual Standard – 0.03 ppm ^d	No	No	No	No	No	No	No	No	No	No
	Max. 1-Hour Conc. (ppm)	0.03	0.03	0.11	0.02	0.02	0.02	0.02	0.02	0.01	0.02
Max. 24-Hour Conc. (ppm)	0.010	0.011	0.041	0.011	0.002	0.012	0.015	0.011	0.004	0.002	
No. Days Exceeded	Suspended Particulates (PM10)^e:										
	California Standards:										
	24-Hour - 50 µg/m ³	14	30	13	16	24	19	15	19	19	32
	Federal Primary Standards:										
	24-Hour – 150 µg/m ³	0	1	0	0	0	2	0	0	0	0
Annual Arithmetic Mean (µg/m ³) ^f	36.1	50.0	41.1	40.8	45.2	43.9	41.4	39.2	45.0	54.8	
Max. 24-Hour Conc. (µg/m ³)	98	112	87	86	100	142	83	80	125	120	
No. Days Exceeded	Suspended Particulates (PM2.5)^c:										
	California & Federal Primary Standards:										
	24-Hour – 65 µg/m ³ (35µg/m ³) ^g	--	9	11	19	8	8	5	4	1(32)	3(33)
	Annual Arithmetic Mean (µg/m ³) ^h	--	30.9	28.2	31.1	27.5	24.9	22.1	21.0	19.0	19.1
Max. 24-Hour Conc. (µg/m ³)	--	111.2	119.6	98.0	77.6	104.3	91.7	98.7	68.5	75.7	

Note: -- No data available.

^a 2004 is first year of SCAQMD records for state 8-hour Ozone standard. Federal 8-hour ozone standard 0.075 ppm effective May 27, 2008.

^b Federal NO₂ standard is AAM > 0.053; State NO₂ standard of AAM > 0.030 effective March 20, 2008.

^c Metro Riverside County 1 air monitoring station (SRA 23) data summaries used.

^d Yes or No indicating whether or not the standard has been exceeded for that year.

^e Perris Valley air monitoring station (SRA 24) data summaries used.

^f Federal PM-10 standard is AAM > 50µg/m³ was revoked December 17, 2006. State standard is AAM > 20µg/m³, effective July 5, 2003.

^g 1999 is first year of SCAQMD records for federal 24-hour PM-2.5 standard and data summary. Threshold changed to 35µg/m³ in 2006.

^h Federal PM-2.5 standard is annual average (AAM) > 15µg/m³. State standard is annual average (AAM) > 12µg/m³

3.3.2 Comments Received in Response to the Notice of Preparation

The SCAQMD sent a comment letter, dated April 21, 2009 (included in Appendix A), in response to the NOP. The SCAQMD requested a copy of the Draft EIR, all supporting air quality analysis, and electronic versions (not Adobe PDF) of all air quality modeling and health risk assessment files. The SCAQMD recommended methods and specific analyses software to be integrated during the EIR's air quality analysis and identifies available information that will help in conducting the air quality analysis and development of mitigation measures.

The analyses in the AQIA (Appendix B) adhere to the SCAQMD directives included in their NOP response letter, and an electronic version of the air quality modeling was transmitted to AQMD along with the Draft EIR.

3.3.3 Thresholds of Significance

San Jacinto has not established local CEQA significance thresholds as described in Section 15064.7 of the State CEQA Guidelines. However, San Jacinto's "Environmental Checklist" for the proposed Project (see Appendix A of this document) as well as Hemet's and RCFCWCD's environmental checklists indicates that impacts to air quality may be considered potentially significant if the Project would:

- conflict with or obstruct implementation of the applicable air quality plan;
- violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- expose sensitive receptors to substantial pollutant concentrations; and/or
- create objectionable odors affecting a substantial number of people.

Potential impacts related to the Project's consistency with applicable air quality plans and creation of objectionable odors affecting a substantial number of people were found to be less than significant in the Initial Study/NOP prepared for this Project (Appendix A).

Due to the nature of the information and analysis presented herein, the threshold regarding cumulative impacts will also include a qualitative and quantitative evaluation of Project-related CO₂ emissions analyzed under this threshold.

In regard to Thresholds of Significance related to GHG, at the time the Initial Study/NOP was released in April 2009, neither the SCAQMD nor any other air district in California had promulgated a quantitative or qualitative significance threshold for GHG. Similarly, neither the

California Environmental Protection Agency (EPA) nor the U.S. EPA developed, to date, guidelines on how to prepare an impact assessment for a community's or Project's GHG contribution to global climate change. However, both the SCAQMD and CARB released draft approaches for setting interim GHG significance thresholds in CEQA documents in late October 2008. Subsequently, the SCAQMD adopted, on December 5, 2008, a GHG significance threshold for industrial projects where the SCAQMD is the lead agency. Additionally, the OPR released preliminary draft amendments to the *State CEQA Guidelines* for GHG emissions on January 8, 2009. These approaches are all described below in the Related Regulations section.

Another limitation to establishing a local threshold, based on a quantitative analysis, is that emissions models such as EMFAC and URBEMIS evaluate aggregate emissions and do not demonstrate, with respect to global impact, how much of these emissions are “new” emissions specifically attributable to the proposed Project in question. Therefore, no threshold exclusively related to GHG has been adopted by the San Jacinto, Hemet, or Riverside County. Nevertheless, the following addresses GHG emissions both qualitatively and quantitatively in the context of cumulative impacts.

3.3.4 Related Regulations

3.3.4.1 Criteria Air Pollutants

The federal and state ambient air quality standards (AAQS) establish the context for the local air quality management plans (AQMP) and for determination of the significance of a Project's contribution to local or regional pollutant concentrations. The federal and state AAQS are presented in **Table 3.3-A** on page 3.3-17. The AAQS represent the level of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other diseases or illness, and persons engaged in strenuous work or exercise, all referred to as “sensitive receptors.” SCAQMD defines a “sensitive receptor” as a land use or facility such as schools, childcare centers, athletic facilities, playgrounds, retirement homes, and convalescent homes (SCAQMD 1993).

Both federal and state Clean Air Acts (CAA) require that each non-attainment area prepare a plan to reduce air pollution to healthful levels. The 1988 CAA and the 1990 amendments to the federal CAA established new planning requirements and deadlines for attainment of the air quality standards within specified time frames which are contained in the State Implementation Plan (SIP). Amendments to the SIP have been proposed, revised, and approved over the past decade (SCAQMD 1993). The currently adopted clean air plan for the basin is the 1999 SIP Amendment, approved by the U.S. Environmental Protection Agency (EPA) in 2000.

The Air Quality Management Plan (AQMP) for the Basin establishes a program of rules and regulations directed at attainment of the state and national air quality standards. The AQMP control measures and related emission reduction estimates are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with

the AQMP for development projects is determined by demonstrating compliance with local land use plans and/or population projections. The SCAQMD adopted an updated AQMP in June 2007, which outlines the air pollution measures needed to meet federal health-based standards for particulates (PM-2.5) by 2014 and for ozone by 2023 (SCAQMD 2007). The AQMP was forwarded to CARB and approved on September 27, 2007. It was sent to the EPA for its final approval and to be included as a revision to California's SIP on November 16, 2007.

The CARB maintains records as to the attainment status of air basins throughout the state, under both state and federal criteria. The portion of the Basin within which the proposed Project is located is designated as a non-attainment area for ozone, PM-10, and PM-2.5, under both state and federal standards.

Construction of the proposed SJV-MDP facilities will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. They include the application of water or chemical stabilizers to disturbed soils; managing haul road dust by application of water; covering all haul vehicles before transport of materials; restricting vehicle speeds on unpaved roads to 15 mph; and sweeping loose dirt from paved site access roadways used by construction vehicles. In addition, it is required to establish a vegetative ground cover on disturbance areas that are inactive within 30 days after active operations have ceased. Alternatively, an application of dust suppressants can be applied in sufficient quantity and frequency to maintain a stable surface. Rule 403 also requires grading and excavation activities to cease when winds exceed 25 mph.

SCAQMD Rule 1113 governs the sale of architectural coatings and limits the volatile organic compounds VOC in paints and paint solvents. Although this rule does not directly apply to the Project, it does dictate the VOC content of paints available for use during building construction.

In order to reduce natural gas and electricity consumption, building design shall comply with the energy efficiency requirements of Title 24 of the California Code of Regulations. Since natural gas use and electricity generation produce air emissions, a reduction in natural gas and electricity consumption results in a related reduction in air quality emissions.

3.3.4.2 Greenhouse Gases

The Montreal Protocol on Substances That Deplete the Ozone Layer controls the phase-out of ozone depleting compounds (ODCs). Under this international agreement, several organizations report on the science of ozone depletion, implement projects to help move away from ODCs, and provide a forum for policy discussions. Many ODCs are also potent GHGs and so policies aimed at reducing their emissions also reduce emissions of GHGs. The SCAQMD supports state, federal, and international policies to reduce levels of ozone depleting gases through its Global Warming Policy and rules. Further, SCAQMD has developed ODC Replacement Guidelines to facilitate transition from ODCs to substances that are the most environmentally benign (SCAQMD 2005).

There are currently no federal regulations or policies regarding GHG emissions. However, on July 11, 2008, the U.S. EPA gave *Advance Notice of Proposed Rulemaking: Regulating Greenhouse Gas Emissions under the Clean Air Act (CAA)*. It will review various CAA

provisions that may be applicable to regulate GHGs and examine the issues that regulating GHGs under those provisions may raise. It will also provide information regarding potential regulatory approaches and technologies for reducing GHG emissions and raise issues relevant to possible legislation and the potential for overlap between legislation and CAA regulation. The Congress instructed the U.S. EPA to publish a proposed mandatory greenhouse gas rule using its authority under the existing CAA in September 2008 and a final rule by June 2009.

The Proposed Mandatory Greenhouse Gas Reporting Rule public comment period ended June 9, 2009. The comment period was open for 60 days, following publication of the proposed rule in the *Federal Register*, April 10, 2009. In general, U.S. EPA proposes that suppliers of fossil fuels or industrial greenhouse gases, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions submit annual reports to U.S. EPA. These reports will serve to inform future policy decisions. The gases covered by the proposed rule are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), sulfur hexafluoride (SF₆), and other fluorinated gases including nitrogen trifluoride (NF₃) and hydrofluorinated ethers (HFE). The Final Mandatory Greenhouse Gas Reporting Rule was published October 30, 2009 (EPA 2009).

California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The latest amendments were made in October 2005 and currently require new homes to use half the energy they used only a decade ago. In September 2008, the changes were adopted to the Building Energy Efficiency Standards contained in the California Code of Regulations (CCR), Title 24, Part 6 (also known as the California Energy Code) and associated administrative regulations in Part 1. The new 2008 standards went into effect July 1, 2009. Energy efficient buildings require less electricity, and electricity production by fossil fuels results in greenhouse gas emissions. Therefore, increased energy efficiency results in decreased greenhouse gas emissions.

The California Building Standards Commission adopted the nation's first green building standards on July 17, 2008. The California Green Building Standards Code (proposed Part 11, Title 24) was adopted as part of the California Building Standards Code in the CCR. Part 11 establishes voluntary standards, that will become mandatory in the 2010 edition of the Code, regarding planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.

California Assembly Bill (AB) 1493 (Pavley), signed by Governor Gray Davis on July 22, 2002, requires CARB to develop and adopt regulations that reduce GHG emitted by passenger vehicles and light duty trucks. Regulations adopted by CARB will apply to 2009 and later model year vehicles. CARB estimates that the regulation will reduce climate change emissions from light duty passenger vehicle fleet by an estimated 18 percent in 2020 and by 27 percent in 2030. The Environmental Protection Agency (EPA) denied the Clean Air Act waiver required to implement

AB 1493 on December 19, 2007. However, the EPA's decision is being challenged in federal court by the State of California. Nevertheless, in the event that the federal waiver is denied or CARB loses the lawsuit brought against it by the automakers, AB 32 requires CARB to adopt alternative regulations to control mobile sources of greenhouse gas emissions to achieve greater or equivalent reductions (see Health & Safety Code Section 38590).

In order to reduce GHG in California, Governor Arnold Schwarzenegger signed Executive Order S-3-05 in June 2005. This Order calls for the following GHG emission reduction targets to be established: reduce GHG emissions to 2000 levels by 2010; reduce GHG emissions to 1990 levels by 2020; and reduce GHG emissions to 80 percent below 1990 levels by 2050. It also requires biennial reports on potential climate change effects on several areas, including water resources. The Order also requires that the Secretary of the California Environmental Protection Agency shall coordinate oversight of the efforts made to meet the targets with: the Secretary of the Business, Transportation and Housing Agency, Secretary of the Department of Food and Agriculture, Secretary of the Resources Agency, Chairperson of the Air Resources Board, Chairperson of the Energy Commission, and the President of the Public Utilities Commission.

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Global Warming Solutions Act of 2006. AB 32 directs the CARB to implement regulations for a cap on sources or categories of sources of GHG emissions. GHG, as defined under AB 32, includes: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. The bill requires that CARB develop regulations to reduce emissions with an enforcement mechanism to ensure that the reductions are achieved, and to disclose how it arrives at the cap. It also includes conditions to ensure that businesses and consumers are not unfairly affected by reductions.

AB 32 requires CARB to:

- adopt a list of discrete early action measures by July 1, 2007 that can be implemented before January 1, 2010;
- establish a statewide GHG emissions cap for 2020 based on 1990 emissions and adopt mandatory reporting rules for significant sources of GHG by January 1, 2008;
- indicate how emission reductions will be achieved from significant GHG sources via regulations, market mechanisms, and other actions by January 1, 2009; and
- adopt regulations by January 1, 2011 to achieve the maximum technologically feasible and cost-effective reductions in GHG, including provisions for using both market mechanisms and alternative compliance mechanisms.

AB 32 codifies the state's goal by requiring that statewide GHG emissions be reduced to 1990 levels by the year 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be implemented no later than January 1, 2012. To effectively implement the cap, AB 32 directs CARB to develop appropriate regulations and establish a mandatory reporting system to track and monitor GHG emissions levels. The CARB adopted the Climate Change Scoping Plan in December 2008 fulfilling the AB 32 requirement of indicating how GHG emission reductions will be achieved.

Also in September 2006, Governor Arnold Schwarzenegger signed Senate Bill (SB) 1368 which calls for the adoption of a GHG performance standard for in-state and imported electricity generators to mitigate climate change. On January 25, 2007, the California Public Utilities Commission adopted an interim GHG emissions performance standard. This standard is a facility-based emissions standard requiring all new long-term commitments for baseload generation to serve California consumers to be with power plants that have emissions no greater than a combined cycle gas turbine plant. The established level is 1,100 pounds of CO₂ per megawatt-hour.

Executive Order S-01-07 was approved by the Governor on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. It also required a Low Carbon Fuel Standard for transportation fuels be established for California which was approved by CARB on April 23, 2009. The regulation is designed to increase the use of alternative fuels, replacing 20 percent of the fuel used by cars in California with clean alternative fuels by 2020, including electricity, biofuels, hydrogen, and other options.

The Western Regional Climate Action Initiative was signed on February 26, 2007 by five states: Washington, Oregon, Arizona, New Mexico, and California. Utah, as well as Manitoba and British Columbia, Canada joined in April, 2007. Montana joined in January, 2008 and Quebec moved from Observer to Partner status in April, 2008. Other United States and Mexican states and Canadian provinces have joined as observers. The Initiative plans on collaborating to identify, evaluate, and implement ways to reduce GHG emissions in the states collectively and to achieve related co-benefits. The Initiative announced recommendations for the design of a regional market-based cap and trade program in September 2008 and released their document "Background Document and Progress Report for Essential Requirements of Mandatory Reporting for the Western Climate Initiative, Third Draft" on January 6, 2009. In addition, a multi-state registry will track, manage, and credit entities that reduce GHG emissions.

In August 2007, Governor Arnold Schwarzenegger signed SB 97, CEQA: Greenhouse Gas Emissions. The bill would require the Governor's Office of Planning and Research (OPR), by July 1, 2009, to prepare guidelines for the feasible mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions, as required by CEQA, including, but not limited to, effects associated with transportation or energy consumption. The Resources Agency would be required to certify and adopt those guidelines by January 1, 2010. On June 19, 2008, OPR released an interim technical advisory for addressing climate change in CEQA documents (OPR 2008). The recommended approach is to identify and quantify Project-related GHG emissions; determine its significance; and if the impact is found to be potentially significant, implement mitigation measures or alternatives that will reduce the impact below significance (OPR 2008, p. 5). Further, the guidance states that the lead agency is not responsible for completely eliminating all Project-related GHG emissions (OPR 2008, p. 7). The approach used in this Draft EIR is consistent with the current OPR recommendations.

On January 8, 2009, OPR released preliminary draft *CEQA Guideline* amendments for GHG. The preliminary draft regulatory language proposed by OPR is intended to clarify existing state

law and is consistent with existing statutes and regulations. On April 13, 2009 OPR transmitted proposed SB 97 CEQA Guidelines Amendments to the Natural Resources Agency (OPR 2009) and on July 3, 2009, the Natural Resources Agency issued a “Notice of Public Hearings and Notice of Proposed Amendment of Regulations Implementing the California Environmental Quality Act” (Natural Resources Agency Notice) as well as an “Initial Statement of Reasons for Regulatory Action: Proposed Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB 97” (Natural Resources Agency ISOR), proposing to adopt OPR’s Proposed CEQA Guidelines, and providing additional explanation about them (NRA ISOR). The Natural Resources Agency Notice explained that two public hearings would be held in August 2009, and deadline for reviewing public comments would be August 20, 2009.

The Proposed CEQA Guidelines emphasize that lead agencies have the discretion to determine appropriate significance thresholds for evaluating GHG impacts that are supported by substantial evidence in the record. According to Proposed CEQA Guidelines Section 15064.4(a), “The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064 [Determining the Significance of the Environmental Effects Caused by a Project]. A lead agency should make a good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a Project.” The Natural Resources Agency Notice further explains that “CEQA leaves lead agencies wide discretion to, for example, choose the appropriate methodology to analyze specific impacts, evaluate evidence regarding the significance of an impacts, and choose appropriate mitigation for impacts identified as significant.” (Natural Resources Agency Notice p. 10)

In addition, Proposed CEQA Guidelines Section 15064.7(c) specifies that “[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence.” The Resources Agency ISOR emphasizes that the Proposed CEQA Guidelines encourage lead agencies to rely on thresholds developed by other agencies with specialized expertise, and note that air districts, in particular, may provide guidance on adopting thresholds of significance (NRA ISOR p. 25). Thus, the Proposed CEQA Guidelines do not prescribe specific significance thresholds for use by lead agencies. Rather, they emphasize the lead agency’s discretion in developing significance thresholds, and encourage lead agencies to consider thresholds by other agencies as well.

The Proposed CEQA Guidelines support the use of AB 32 as a performance-based significance threshold against which to evaluate cumulative GHG impacts from a Project. According to Section 15064.4(a)(2), lead agencies may rely on performance-based standards in determining a Project’s impacts. In addition, Section 15064.4(b)(3) of the Proposed CEQA Guidelines permits consideration by the lead agency of “the extent to which the Project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions” when assessing the significance of impacts from greenhouse gas emissions on the environment.

The Proposed CEQA Guidelines also maintain the existing Guidelines concept of consistency with an approved plan or mitigation program demonstrating a Project’s impacts are less than significant; however, the Proposed CEQA Guidelines provide further examples of what these plans might include. (Proposed CEQA Guidelines Section 15064(h)(3).) According to the Proposed CEQA Guidelines, such a program or plan may “include, but [is] not limited to, water quality control plan, air quality attainment or maintenance plan, natural community conservation plan, plans or regulations for the reduction of greenhouse gas emissions.” (*Id.*; *see also* Proposed CEQA Guidelines, Appendix G, VII(b).) (“Would the Project . . . conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing emissions of greenhouse gases?”)

Similarly, the various draft guidance documents released by expert agencies on CEQA and climate change recognize that climate change is a cumulative problem that cannot be attributed to individual projects. For example, Section 15130(f) of OPR’s Proposed CEQA Guidelines makes clear OPR’s belief that GHG emissions should be considered at a cumulative level (OPR 2009, p. 4). This document states that “a new subdivision is proposed to emphasize that the effect of greenhouse gas emissions are cumulative, and should be analyzed in the context of CEQA’s requirements for cumulative impacts analysis.” SCAQMD’s 2008 Guidance also recognizes that climate change impacts should be considered on a cumulative basis (SCAQMD 2008c, Figures B-1, B-2, B-3 outlining significance threshold approach that analyzes whether a Project’s *cumulative* impacts will be significant, pages 3-3, 3-10, 3-12). The Attorney General has also indicated that GHG emissions are appropriately considered on a cumulative scale (AGO).

OPR has attempted to make the preliminary draft Guideline amendments consistent with the existing CEQA framework for environmental analysis, including but not limited to the determination of baseline conditions, determination of significance, cumulative impacts and evaluation of mitigation measures. For these reasons, OPR did not identify a threshold of significance for greenhouse gas emissions, nor did they prescribe assessment methodologies or specific mitigation measures. The preliminary draft amendments encourage lead agencies to consider many factors in performing a CEQA analysis, but preserve the discretion granted by CEQA to lead agencies in making their own determinations based on substantial evidence. The preliminary draft amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual Project analyses. Therefore, with respect to this Project, this Draft EIR is analyzing greenhouse gas emissions with respect to the Threshold “Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).”

On September 30, 2008, Governor Arnold Schwarzenegger signed SB 375 (Steinberg). SB 375 focuses on housing and transportation planning decisions to reduce fossil fuel consumption and conserve farmlands and habitat. This legislation is important to achieving AB 32 goals because greenhouse gas emissions associated with land use, which includes transportation, are the single largest source of emissions in California. SB 375 provides a path for better planning by

providing incentives to locate housing developments closer to where people work and go to school, allowing them to reduce vehicle miles traveled (VMT) every year.

To achieve these goals, SB 375 will:

- require the regional transportation plan for each of the state’s major metropolitan areas to adopt a “sustainable community strategy” that will meet the region’s target for reducing GHG emissions from cars and light trucks. These strategies would get people out of their cars by promoting smart growth principles such as: development near public transit; projects that include a mix of residential and commercial use; and projects that include affordable housing to help reduce new housing developments in outlying areas with cheaper land and reduce VMT;
- create incentives for implementing the sustainable community strategies by allocating federal transportation funds only to projects that are consistent with the emissions reductions; and
- provide various forms of CEQA relief by allowing projects that are shown to conform to the preferred sustainable community strategy through the local general plans (and therefore contribute to GHG reduction) to have a more streamlined environmental review process. Specifically, if a development is consistent with the sustainable community’s strategy and incorporates any mitigation measures required by a prior EIR; then, the environmental review does not have to consider: a) growth-inducing impacts, or b) Project-specific or cumulative impacts from cars on global climate change or the regional transportation network. In addition, a narrowly-defined group of “transit priority projects” will be exempt from CEQA review.

On October 24, 2008, CARB released the Preliminary Draft Staff Proposal: Recommended Approaches for Setting Interim Significant Thresholds for Greenhouse Gases under CEQA recommending GHG-related significance thresholds which lead agencies can use in the significance determination pursuant to OPR’s request (CARB 2008). The current recommendations are a sector-specific approach to develop thresholds for projects that result in a substantial portion of the state’s GHG emissions. The preliminary interim thresholds are for two sectors: 1) industrial projects, and 2) residential and commercial projects. For industrial projects that do not qualify under existing CEQA statutory or categorical exemptions, CARB recommends that GHG-related impacts may be found to be insignificant if they: (1) meet interim performance standards for construction and transportation-related emissions; and (2) emit no more than 7,000 MTCO₂E (3,000 MTCO₂E for residential/commercial) from non-transportation operational sources. CARB recommends that residential and commercial projects that do not qualify under existing CEQA statutory or categorical exemptions are presumed to have a less than significant impact related to climate change if: (1) construction activities meet an interim CARB performance standard for construction-related emissions; (2) operational activities: i) meet the California Energy Commission’s Tier II Energy Efficiency goal; ii) meet an interim CARB performance standard for water use; iii) meet an interim CARB performance standard for waste; and iv) meet an interim CARB performance standard for transportation; and (3) the Project will emit no more than a “to be determined” limit for metric tons CO₂e per year. Although the CARB 2008 Draft Guidance indicated CARB’s intent to provide final guidance to

OPR before OPR issued its draft CEQA guidelines, CARB did not release final guidance before OPR's April 2009 release of its Proposed CEQA Guidelines or the July 2009 Natural Resources Agency Notice. Therefore, the approach used in this Draft EIR is to disclose the most recent regulatory activity, even if it not approved, and to compare Project-related emissions to the CARB recommendations and the below-described proposed SCAQMD recommendations and incorporate the findings into a significance determination.

Regionally, the SCAQMD is responsible for monitoring air quality; and planning, implementing, and enforcing programs designed to attain and maintain state and federal ambient air quality standards in the district. Programs developed include air quality rules and regulations that regulate stationary source emissions, including area and point sources and certain mobile source emissions. The SCAQMD is also responsible for establishing permitting requirements and issuing permits for stationary sources and ensuring that new, modified, or relocated stationary sources do not create net emissions increases. The SCAQMD enforces air quality rules and regulations through a variety of means, including inspections, educational and training programs, and fines. A number of GHG are currently regulated through implementation of rules adopted by the SCAQMD, as discussed below.

Methane emissions from landfills are reduced by SCAQMD Rule 1150.1 – Control of Gaseous Emissions from Active Landfills. Methane emissions from petroleum sources are reduced by a number of rules in SCAQMD Regulation XI that control fugitive emissions from petroleum production, refining, and distribution.

SCAQMD Rule 1418 – Halon Emissions from Fire Extinguishing Equipment requires the recovery and recycling of halons used in fire extinguishing systems and prohibits the sale of halon in small fire extinguishers.

SCAQMD Rule 1415 – Reduction of Refrigerant Emissions from Stationary Refrigeration and Air Conditioning Systems requires CFC refrigerants to be reclaimed or recycled from stationary refrigeration and air conditioning systems. SCAQMD Rule 1405 – Control of Ethylene Oxide and Chlorofluorocarbon Emissions from Sterilization or Fumigant Processes requires recovery of reclamation of CFCs at certain commercial facilities and eliminates the use of some CFCs in the sterilization processes. Some CFCs are classified as TACs and regulated by SCAQMD Rule 1401 – New Source Review of Toxic Air Contaminants and SCAQMD Rule 1402 Control of Toxic Air Contaminants from Existing Sources.

SCAQMD regulates TCA compound as a toxic air contaminant under Rules 1401 and 1402.

In addition to current rules and regulations which also address GHG, SCAQMD plans to provide guidance to local lead agencies on determining significance for GHG in their CEQA documents by convening a *GHG CEQA Significance Threshold Working Group* to work with SCAQMD staff on developing GHG CEQA significance thresholds. The SCAQMD began hosting monthly working group meetings in April 2008. The result of the October 22, 2008 working group meeting was a *Draft AQMD Staff CEQA Greenhouse Gas Significance Threshold* (SCAQMD 2008a) and the *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* (SCAQMD 2008b). The Draft Threshold is intended to be interim guidance until

statewide significance thresholds or guidance is established. The proposed significance threshold is a tiered approach which allows for flexibility by establishing multiple thresholds to cover a broad range of projects.

SCAQMD proposes three tiers of compliance that may lead to a determination that impacts are less than significant, including: (1) projects with greenhouse gas emissions within budgets set out in approved regional plans, to be developed under the SB 375 process; (2) projects with greenhouse gas emissions that are below designated quantitative thresholds: (i) industrial projects with an incremental greenhouse gas emissions increase that falls below (or is mitigated to be less than) 10,000 MTCO₂e /yr; or (ii) commercial and residential projects with an incremental greenhouse gas emissions increase that falls below (or is mitigated to be less than) 3,000 MTCO₂e /yr, provided that such projects also meet energy efficiency and water conservation performance targets that have yet to be developed; (3) projects that purchase greenhouse gas offsets which, either alone or in combination with one of the three tiers mentioned above, achieve the target significance screening level.

On December 5, 2008, the SCAQMD Governing Board adopted its staff proposal for an interim CEQA GHG significance threshold for projects where the SCAQMD is the lead agency. Currently, the Board has only adopted thresholds relevant to industrial (stationary source) projects. To achieve a policy objective of capturing 90% of GHG emissions from new residential/commercial development projects and implement a “fair share” approach to reducing emission increases from each sector, SCAQMD staff has proposed combining performance standards and screening thresholds. The performance standards suggested have primarily focused on energy efficiency measures beyond Title 24 Part 6, California’s building energy efficiency standards, and a screening level of 3,000 tonnes CO₂e per year based on direct operational emissions. Above this screening level, Project design features designed to reduce GHGs must be implemented to reduce the impact to below a level of significance. SCAQMD staff are performing additional analyses to further define the performance standards as well as coordinating with CARB’s interim GHG proposal. At this time SCAQMD is waiting for CARB’s recommendations for the residential/commercial sector. Once CARB adopts the statewide significance thresholds, staff will report back to the Board regarding any recommended changes or additions to the SCAQMD’s interim threshold.²

The approach used in this analysis is consistent with the current SCAQMD recommendations by utilizing the Tier 3 screening level and implementing design features to reduce Project-related emissions. The Project does not qualify for Tier 1 or Tier 2 since there are no applicable exemptions for this Project or regional/local GHG budgets for the Basin or for Riverside County.

3.3.5 Project Design Considerations

The proposed Project has not been designed to specifically avoid potential impacts to air quality. However the facilities identified in the SJV-MDP will be constructed in numerous phases, minimizing emission and dust generation at any given time.

² <http://www.aqmd.gov/hb/2008/December/081231a.htm>

3.3.6 Environmental Impacts Before Mitigation

Threshold: *Violate any air quality standard or contribute substantially to an existing or projected air quality violation.*

Air quality impacts can be divided into short-term and long-term impacts. Short-term impacts are usually related to construction and grading activities. Long-term impacts are usually associated with build-out conditions and long-term operations of a Project. Both short-term and long-term air quality impacts can be analyzed on a regional and localized level. Regional air quality thresholds examine the effect of Project emissions on the air quality of the Basin, while localized air quality impacts examine the effect of Project emissions on the neighborhood around the Project site. The following information was derived from the AQIA, which is included as Appendix B of this document.

3.3.6.1 SCAQMD’s Regional Significance Threshold (RST) Analysis

The thresholds shown in **Table 3.3-B**, below, are from the SCAQMD’s CEQA Handbook and are the standard regional thresholds for determining significance under CEQA sanctioned by the SCAQMD. These regional significance thresholds were developed by SCAQMD based on the estimated daily emissions of a major stationary source and corresponding mobile source emissions.

Table 3.3-B, SCAQMD CEQA Regional Significance Thresholds

Emission Threshold	Units	VOC	NO_x	CO	SO_x	PM-10	PM-2.5
Construction	lbs/day	75	100	550	150	150	55
Operations	lbs/day	55	55	550	150	150	55

Short-Term Impacts – RST Analysis

Short-term emissions consist of fugitive dust and other particulate matter, as well as exhaust emissions generated by construction-related vehicles. Short-term impacts will also include emissions generated during construction as a result of operation of personal vehicles by construction workers, and asphalt degassing.

The Project will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. Compliance with this rule is achieved through application of standard best management practices in construction and operation activities, such as application of water or chemical stabilizers to disturbed soils, managing haul road dust by application of water, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 mph, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph and establishing a permanent, stabilizing ground cover on finished sites. In addition, projects that disturb 50 acres or more of soil or move 5,000 cubic yards of materials per day are required to submit a Fugitive Dust Control Plan or a Large Operation Notification Form to SCAQMD. Depending on the size of

individual construction projects, certain SJV-MDP facilities may or may not require a Fugitive Dust Control Plan or Large Operation Notification.

SCAQMD Rule 1113 governs the sale of architectural coatings and limits the volatile organic content (VOC) in paints and paint solvents. Although this rule does not directly apply to the Project, it does dictate the VOC content of paints available for use during building construction.

Short-term emissions were evaluated using the URBEMIS 2007 for Windows version 9.2.4 computer program. The model evaluated emissions resulting from basin excavation and construction of several types of drainage facilities. Construction timing and phasing of all San Jacinto Valley MDP facilities are unknown; therefore, it was assumed that construction of all four modeled scenarios could start no sooner than August 2010. The default parameters within URBEMIS were used and these default values reflect a worst-case scenario, which means that any other proposed MDP facility's emissions are expected to be equal to or less than the estimated construction emissions modeled for each of the four modeled scenarios.

Four different “worst-case” scenarios representing each type of individual construction Project were analyzed. In addition to the default values used, several assumptions relevant to model inputs for short-term construction emission estimates of each facility are presented below.

Casa Loma Basin:

- Construction of this basin is anticipated to require no less than nine months. As stated above, construction timing is unknown and is assumed to occur no sooner than August 2010.
- Approximately 727,000 cubic yards (CY) of soil will be exported from the site. While the location of the exported soil is unknown at this time, plenty of sites exist within 10 miles of the Project site to deposit fill material. Therefore, for modeling purposes each truck trip (two truck trips per truckload) is set at 10 miles. A maximum disturbance area of 2-acres is assumed to occur per day.
- To evaluate Project compliance with SCAQMD Rule 403 for fugitive dust control, the facility utilized the mitigation option of watering the Project site three times daily which achieves a control efficiency of 61 percent for PM-10 and PM-2.5 emissions.

Line Y:

- Construction of 12,000 linear feet of Line Y in this analysis also includes Line Y-1 and does not include the segment of Line Y that continues south from the connection with Line Y-1 to Warren Road ending at Seventh Street. The maximum dimensions for this underground concrete box alignment are 14-feet wide by 11-feet deep.
- Construction of this facility is anticipated to progress at a rate of 100 feet per day. As stated above, construction timing is unknown and is assumed to occur no sooner than August 2010.
- A trench depth of 20 feet is anticipated approximately 1,500 CY of on-site cut/fill will be disturbed daily during the excavation and re-compaction of the Project area.

- To evaluate Project compliance with SCAQMD Rule 403 for fugitive dust control, the Project utilized the mitigation option of watering the facility site three times daily which achieves a control efficiency of 61 percent for PM-10 and PM-2.5 emissions.

Line E:

- Construction of the 14,700 linear feet of open channel is anticipated to progress at a rate of 500 feet per day. As stated above, construction timing is unknown and is assumed to occur no sooner than August 2010.
- A trench depth of 7 feet is anticipated and approximately 7,300 CY of on-site cut/fill will be disturbed daily during the excavation and re-compaction of the Project area.
- To evaluate Project compliance with SCAQMD Rule 403 for fugitive dust control, the facility utilized the mitigation option of watering the Project site three times daily which achieves a control efficiency of 61 percent for PM-10 and PM-2.5 emissions.

Line D-4:

- Construction of the 2,200 linear feet of 42-inch underground pipeline is anticipated to progress at a rate of 100 feet per day. As stated above, construction timing is unknown and is assumed to occur no sooner than August 2010.
- A trench depth of 9 feet is anticipated and approximately 233 CY of on-site cut/fill will be disturbed daily during the excavation and re-compaction of the Project area.
- To evaluate Project compliance with SCAQMD Rule 403 for fugitive dust control, the Project utilized the mitigation option of watering the Project site three times daily which achieves a control efficiency of 61 percent for PM-10 and PM-2.5 emissions.
- Approximately 15,400 square feet (0.35 acres) of surface area will be covered in asphalt once the pipeline is in place. To ensure a worst-case scenario, it is assumed that both pipeline installation and asphalt paving could occur concurrently.

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The construction equipment estimated to be used for each Project is shown in Appendix A of the AQIA (included as Appendix B of the Draft EIR). **Table 3.3-C** through **Table 3.3-F** summarize the estimated construction emissions from each representative construction scenario.

Table 3.3-C, Casa Loma Basin – Estimated Daily Construction Emissions

Activity/Year	Peak Daily Emissions (lb/day)					
	VOC	NO _x	CO	SO ₂	PM-10	PM-2.5
SCAQMD Daily Thresholds	75	100	550	150	150	55
Construction 2010						
Fugitive Dust ¹	0.00	0.00	0.00	0.00	140.51	29.34
Off-Road Diesel	9.51	79.47	41.07	0.00	3.95	3.64
On-Road Diesel	8.01	111.95	39.96	0.15	4.87	4.17
Worker Trips	0.07	0.14	2.35	0.00	0.02	0.01
Maximum	17.59	191.56	83.38	0.15	149.35	37.16
Exceeds Threshold?	No	Yes	No	No	No	No
Construction 2011						
Fugitive Dust ¹	0.00	0.00	0.00	0.00	140.51	29.34
Off-Road Diesel	8.96	74.72	39.27	0.00	3.69	3.39
On-Road Diesel	7.36	100.25	35.96	0.15	4.34	3.68
Worker Trips	0.06	0.12	2.17	0.00	0.02	0.01
Maximum	16.38	175.09	77.40	0.15	148.56	36.42
Exceeds Threshold?	No	Yes	No	No	No	No

Notes: See Appendix A of AQIA (included as Appendix B of this Draft EIR) for model output report.
¹ Output from URBEMIS utilizes mitigation option of watering the Project site three times daily.

Table 3.3-D, Line Y – Estimated Daily Construction Emissions

Activity/Year	Peak Daily Emissions (lb/day)					
	VOC	NO _x	CO	SO ₂	PM-10	PM-2.5
SCAQMD Daily Thresholds	75	100	550	150	150	55
Construction 2010						
Fugitive Dust ¹	0.00	0.00	0.00	0.00	91.76	19.16
Off-Road Diesel	4.81	38.34	20.73	0.00	2.10	1.94
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00

Table 3.3-D, Line Y – Estimated Daily Construction Emissions

Activity/Year	Peak Daily Emissions (lb/day)					
	VOC	NO _x	CO	SO ₂	PM-10	PM-2.5
SCAQMD Daily Thresholds	75	100	550	150	150	55
Worker Trips	0.05	0.09	1.57	0.00	0.01	0.01
Maximum	4.86	38.43	22.30	0.00	93.87	21.11
Exceeds Threshold?	No	No	No	No	No	No
Construction 2011						
Fugitive Dust ¹	0.00	0.00	0.00	0.00	91.76	19.16
Off-Road Diesel	4.53	35.87	20.03	0.00	1.97	1.82
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.04	0.08	1.45	0.00	0.01	0.01
Maximum	4.57	35.95	21.48	0.00	93.74	20.99
Exceeds Threshold?	No	No	No	No	No	No

Notes: See Appendix A of AQIA (included as Appendix B of this Draft EIR for model output report.
¹ Output from URBEMIS utilizes mitigation option of watering the Project site three times daily.

Table 3.3-E, Line E – Estimated Daily Construction Emissions

Activity/Year	Peak Daily Emissions (lb/day)					
	VOC	NO _x	CO	SO ₂	PM-10	PM-2.5
SCAQMD Daily Thresholds	75	100	550	150	150	55
Construction 2010						
Fugitive Dust ¹	0.00	0.00	0.00	0.00	452.25	94.45
Off-Road Diesel	8.35	67.59	36.68	0.00	3.56	3.27
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.07	0.14	2.35	0.00	0.02	0.01
Maximum	8.42	67.73	39.03	0.00	455.83	97.73
Exceeds Threshold?	No	No	No	No	Yes	Yes

Notes: See Appendix A of AQIA (included as Appendix B of this Draft EIR) for model output report.
¹ Output from URBEMIS utilizes mitigation option of watering the Project site three times daily.

Table 3.3-F, Line D-4 – Estimated Daily Construction Emissions

Activity/Year	Peak Daily Emissions (lb/day)					
	VOC	NO _x	CO	SO ₂	PM-10	PM-2.5
SCAQMD Daily Thresholds	75	100	550	150	150	55
Construction 2010						
Trenching						
Fugitive Dust ²	0.00	0.00	0.00	0.00	15.46	3.23
Off-Road Diesel	3.73	30.98	15.77	0.00	1.55	1.43
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.03	0.06	1.04	0.00	0.01	0.01
Asphalt						
Off-Gas	0.03	0.00	0.00	0.00	0.00	0.00
Off-Road Diesel	1.67	10.14	5.80	0.00	0.86	0.79
On-Road Diesel	0.01	0.11	0.04	0.00	0.00	0.00
Worker Trips	0.05	0.09	1.57	0.00	0.01	0.01
Maximum ¹	5.50	41.29	24.16	0.00	17.88	5.45
Exceeds Threshold?	No	No	No	No	No	No

Notes: See Appendix A of AQIA (included as Appendix B of this Draft EIR) for model output report.

¹ Maximum emissions are the sum of trenching and asphalt/paving activities since these activities could be occurring concurrently.

² Output from URBEMIS utilizes mitigation option of watering the Project site three times daily.

Evaluation of **Tables 3.3-C through 3.3-F**, above, indicates that criteria pollutant emissions from construction of the Casa Loma Basin Project will exceed the SCAQMD regional daily thresholds for NO_x throughout construction, and construction of Line E will exceed the SCAQMD regional daily thresholds for PM-10, and PM-2.5. Construction of Line Y and Line D-4 will not exceed any SCAQMD regional daily thresholds for criteria pollutant emissions. The main source of NO_x emissions is from on-road vehicle exhaust from soil hauling and construction equipment; the main source of PM-10 and PM-2.5 emissions is from fugitive dust during channel excavation activities.

Since this Project consists of several distinct proposed facility alignments and basin sites, there is the possibility that construction of various SJV-MDP facilities will overlap. It was determined that construction of the Casa Loma Basin and the analyzed portion of Line Y would be the most likely of all SJV-MDP facilities to be constructed at the same time; therefore, this combination of facilities was used to Project the maximum daily emissions for the Project. The maximum daily emissions from these overlapping construction schedules during 2010 and 2011 are contained in **Table 3.3-G**.

Table 3.3-G, Estimated Maximum Daily Emissions (2010–2011)

Activity/Year	Peak Daily Emissions (lb/day)					
	VOC	NO _x	CO	SO ₂	PM-10	PM-2.5
SCAQMD Daily Thresholds	75	100	550	150	150	55
2010						
Casa Loma Basin	17.59	191.56	83.38	0.15	149.35	37.16
Line Y	4.86	38.43	22.30	0.00	93.87	21.11
Maximum	22.45	229.99	105.68	0.15	243.22	58.27
Exceeds Threshold?	No	Yes	No	No	Yes	Yes
2011						
Casa Loma Basin	16.38	175.09	77.40	0.15	148.56	36.42
Line Y	4.57	35.95	21.48	0.00	93.74	20.99
Maximum	20.95	211.04	98.88	0.15	242.30	57.41
Exceeds Threshold?	No	Yes	No	No	Yes	Yes

The maximum short-term emissions during 2010 and 2011 will be higher than the emissions from the two individual Project types alone. As shown in **Table 3.3-G**, criteria pollutant emissions from construction in both years will exceed the SCAQMD regional daily thresholds for NO_x, PM-10, and PM-2.5.

Long-Term Impacts – RST Analysis

Long-term air quality impacts will occur once the Project is in operation. The majority of operational emissions would be from the infrequent visits by vehicles driven by maintenance personnel. This and any other maintenance-related activity will not result in substantial sources of emissions when compared to the existing maintenance routine of the current MDPs for the area.

RST Analysis Conclusion

Based on the regional significance threshold analysis for the proposed Project, short-term construction emissions will exceed the daily regional thresholds set by SCAQMD for NO_x, PM-10, and PM-2.5 during the construction of various facilities or combinations of facilities, but will not exceed any other pollutant thresholds. Long-term SJV-MDP operational emissions are considered negligible because the proposed SJV-MDP will not result in a change from the operation of the Existing MDPs (i.e., the San Jacinto MDP and the Northwest Hemet MDP) for the Project area.

3.3.6.2 SCAQMD’s Localized Significance Threshold (LST) Analysis

The pollutants analyzed under the LST are CO, NO_x, PM-10, and PM-2.5. Of these pollutants, the “attainment pollutants” (CO and NO_x) are derived using an air quality dispersion model to back-calculate the daily emissions that would cause or contribute to a violation in ambient air

quality for the SRA in which the Project is located (SRA 25). The non-attainment PM-10 and PM-2.5 pollutant measurements are derived using an air quality dispersion model to back-calculate the emissions necessary to make the existing violation in SRA 25 worse, using the allowable change in concentration thresholds approved by the SCAQMD.

The short-term LST analysis for the each representative facility site was performed using lookup tables provided by the SCAQMD. SCAQMD has provided LST lookup tables to allow users to readily determine if the daily emissions for proposed construction or operational activities could result in significant localized air quality impacts for projects five acres or smaller. For each of the Project-related activities, it was anticipated that an area no larger than two acres would be disturbed at any one time in a given location during construction. The results are included following the short-term analysis discussion below.

Short-Term Impacts – LST Analysis

For short-term construction emissions, it is estimated that the maximum area to be disturbed for each representative facility would be less than or equal to two acres a day. According to the LST methodology, only on-site emissions need to be analyzed. On-site construction emissions do not include worker trips or on-road diesel truck emissions from soil hauling. SCAQMD has provided LST lookup tables and sample construction scenarios (available at <http://www.aqmd.gov/ceqa/handbook/LST/LST.html>) to allow users to readily determine if the daily emissions for proposed construction or operational activities could result in significant localized air quality impacts for projects five acres or smaller. Although some of the representative facility sites are larger than five acres, it is anticipated that an area no larger than two acres would be disturbed on any of the representative facility sites per day during construction. Therefore, the LST lookup tables were used for construction emissions. Facility-specific information such as disturbance area, amount of dirt handled, and the equipment type and numbers were input instead of default information when available.

The LST thresholds are estimated using the maximum daily-disturbed area (in acres) and the distance of the Project to the nearest sensitive receptors (in meters). The LST lookup tables only provide thresholds for distances of 25, 50, 100, 200, and 500 meters away from the Project boundary, so the receptor distances used reflect one of these distances. Because the proposed Project, as analyzed, consists of four separate facility sites in different locations that are located different distances from sensitive receptors, each representative facility is analyzed separately for its relationship to the nearest sensitive receptors. Existing residences are the nearest sensitive receptors in the Project area for each of the representative facilities. However, the entire SJV-MDP area includes many types of sensitive receptors consisting of schools, child care centers, athletic facilities, playgrounds, retirement homes, and convalescent homes adjacent to and in close proximity with the majority of the SJV-MDP facilities.

The Casa Loma Basin is separated from its nearest sensitive receptors by Cottonwood Avenue at a distance of approximately 100 feet (30 meters). Line Y is separated from the nearest sensitive receptors, residences on agricultural lands, by a minimum of approximately 600 feet (183 meters) so the receptor distance of 200 meters was used. The nearest sensitive receptor to Line E is a residence approximately 170 feet (52 meters) west of its proposed alignment on Sanderson

Avenue near the existing San Jacinto Reservoir. LST Methodology states that Project’s with boundaries located closer than 25 meters to the nearest receptor should use the LST distance of 25 meters for the analysis. A distance of 25 meters was used to estimate the receptor distance for Line D-4 construction that will occur within existing road right-of-way adjacent to sensitive receptors on Hewitt Street. **Table 3.3-H** summarizes the emissions from each representative facility and the corresponding threshold.

Table 3.3-H, Localized Short-Term Construction Impacts

Activity	Maximum Daily Disturbed Area (acres)	Peak Daily Emissions (lb/day)			
		NO _x	CO	PM-10	PM-2.5
Casa Loma Basin	2.0	115.2	53.7	9	5.9
25 Meter Threshold	2.0	234	970	7	4
Exceeds Threshold		No	No	Yes	Yes
Line Y	0.23	53.5	26.8	3.4	2.8
200 Meter Threshold	1.0	460	4,850	67	20
Exceeds Threshold		No	No	No	No
Line E	1.15	102.3	49.7	6.7	5.1
50 Meter Threshold	1.0	203	974	12	4
Exceeds Threshold		No	No	No	Yes
D-4	0.23	74.4	38.2	4.8	4.2
25 Meter Threshold	1.0	162	661	4	3
Exceeds Threshold		No	No	Yes	Yes

According to **Table 3.3-H**, construction of the Casa Loma Basin and Line D-4 will result in localized PM-10 and PM-2.5 impacts to the respective sensitive receptors in the Project vicinity and the construction of Line E will result in localized PM-2.5 impacts to its receptors. Localized emissions of NO_x and CO from construction of each representative Project will not exceed the applicable LST.

Long-Term Impacts – LST Analysis

The drainage facilities proposed by the SJV-MDP consist of the construction of reinforced concrete boxes, reinforced concrete pipes, open concrete channels, open earth channels, and earthen basins. The majority of the operational emissions are in the form of mobile source emissions from infrequent visits by maintenance vehicles, without any stationary sources present. According to the SCAQMD LST methodology, LSTs would apply to the operational phase of a Project, if the Project includes stationary sources, or attracts mobile sources that may spend long periods queuing and idling at the site; such as warehouse/transfer facilities. The proposed Project does not include such uses. Therefore, due the lack of stationary source emissions, no long-term localized significance threshold analysis is needed.

LST Analysis Conclusion

Based on the LST analysis of the proposed Project, the short-term construction of the Project will result in localized air quality impacts to sensitive receptors within the Project vicinity from emissions of PM-10 and PM-2.5 during construction of various Project facilities. However, short-term construction will not result in an exceedance of the LST thresholds for NO_x or CO. Due to the lack of stationary source emissions; no long-term localized significance threshold analysis is needed.

3.3.6.3 Conclusions

Based on the regional significance threshold analysis for the proposed Project, short-term construction emissions will exceed the daily regional thresholds set by SCAQMD for NO_x, PM-10, and PM-2.5 during the construction of various facilities or combinations of facilities, but will not exceed any other pollutant thresholds. Short-term construction impacts are **considered significant**. No long-term MDP operational emissions were evaluated because the proposed SJV-MDP will not result in a change from the operation of the existing MDPs for the Project area; therefore, long-term operational impacts are **considered less than significant**.

Based on the LST analysis of the proposed Project, the short-term construction of the Project will not result in any localized air quality impacts to sensitive receptors within the Project area for NO_x or CO; however, emissions of PM-10 and PM-2.5 are above SCAQMD recommended daily thresholds, and short-term construction impacts are **considered significant**. Due to the lack of stationary source emissions; no long-term localized significance threshold analysis is needed, and long-term operational impacts are considered **less than significant**.

***Threshold:** Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).*

3.3.6.4 Criteria Pollutants

The portion of the SCAB in which the Project is located is designated as a non-attainment area for ozone, PM-10, and PM-2.5 under both state and federal standards.

In evaluating the cumulative effects of the Project, Section 21100(e) of CEQA states that “previously approved land use documents including, but not limited to, general plans, specific plans, and local coastal plans, may be used in cumulative impact analysis.” In addressing cumulative effects for air quality, the AQMP utilizes approved general plans; therefore, it is the most appropriate document to use in evaluating cumulative impacts of the proposed Project. This is because the AQMP evaluated air quality emissions for the entire Basin using a future development scenario based on population projections and set forth a comprehensive program that would lead the region, including the Project area, into compliance with all federal and state air quality standards. As described in the NOP for this Project (Appendix A), the Project will not conflict with or obstruct the implementation of the AQMP. The Project’s short-term construction emissions for NO_x, PM-10, and PM-2.5 have been shown to be significant on a regional level. However, since it is only the Project’s short-term emissions that are above thresholds for NO_x,

PM-10, and PM-2.5, and the impact is temporary (approximately six months in duration), the impact is **not considered to have a cumulatively considerable net increase** on ozone and PM-10, which are non-attainment in the region under both state and federal standards, and is considered **less than significant**.

3.3.6.5 Greenhouse Gases (GHG)

Regarding GHG emissions, a Project that shifts the location of where someone lives or works, by itself, may or may not contribute new GHG emissions. For example, someone may move from Northern California to western Riverside County, and while this would likely increase emissions within the Basin, it would not necessarily result in the generation of more GHG emissions globally. However, if a person moves from one location, with long commutes and a land use pattern that requires substantial energy use, to a Project location that promotes shorter and fewer vehicle trips, more walking and less energy use, the new Project could potentially result in a reduction in generation of global GHG emissions.

The following analysis represents an attempt to estimate the proposed Project's GHG emissions assuming Project build-out in 2012 primarily through the quantification of CO₂ emissions. As previously stated, CO₂ emissions accounted for approximately 84 percent of the state's total GHG emissions in 2004. Methane and nitrous oxide accounted for 5.7 and 6.8 percent, respectively. Therefore, while not intended to be an all-inclusive inventory of overall GHG emissions from the Project; the estimation of CO₂ from the most important construction and operation related sources is illustrative of much of the Project's contribution to GHG.

It should be noted that the release of GHG in general and CO₂ specifically into the atmosphere is not of itself an adverse environmental affect. It is the effect that increased concentrations of GHG, including CO₂, in the atmosphere has upon the Earth's climate (i.e., climate change) and the associated consequences of climate change that results in adverse environmental effects (e.g., sea level rise, loss of snowpack, severe weather events). Although air quality modeling can estimate the proposed Project's incremental contribution of CO₂ into the atmosphere, it is not feasible to determine whether or how an individual Project's relatively small incremental contribution (on a global scale) might translate into physical effects on the environment. Since the Earth's climate is determined by the complex interaction of different components of the Earth and its atmosphere, it is not possible to discern whether the presence or absence of GHG emitted by the proposed Project would result in any measurable impact that would cause climate change.

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The following Project activities were analyzed below for their contribution to global CO₂ emissions:

Short-Term Emissions: Construction Related Activities

The recently updated URBEMIS model calculates carbon dioxide emissions from fuel usage by construction equipment and construction-related activities, like worker trips, for the Project in tons per year (one ton equals 2,000 pounds). The URBEMIS estimate does not analyze emissions from construction related electricity or natural gas. Construction related electricity and natural gas emissions vary based on the amount of electric power used during construction and other unknown factors which make them too speculative to quantify. Life-cycle emissions associated with the manufacture of building materials are also not quantified in this analysis although they undoubtedly exist. Quantification was not attempted because of the large spatio-temporal variation in sources for building products that may used to construct the SJV-MDP facilities and the consequent large uncertainty associated with the resulting emissions. For this reason, to attempt to quantify life-cycle emissions of materials would be speculative. This conclusion is consistent with recent guidance on quantification of emissions for commercial projects presented by the California Air Pollution Control Officer’s Association guidance on CEQA and Climate Change (CAPCOA).

The following table summarizes the output results and presents the emissions estimates in Mt of CO₂.

Table 3.3-I, Project Construction Equipment Emissions

Project Year	Total tons CO₂	Total MtCO₂
2010		
Casa Loma Basin	1,273.70	1,155.48
Line Y	204.66	185.66
Line E	92.19	83.63
Line D-4	42.87	38.89
2011		
Casa Loma Basin	984.22	892.87
Line Y	18.61	16.88
Total		2,373.42

Evaluation of the **Table 3.3-I** indicates that an estimated total of 2,373 MtCO₂ emissions from construction equipment will occur in the four modeled scenarios. The draft SCAQMD GHG threshold guidance document released in October 2008 (SCAQMD 2008b) recommends that construction emissions be amortized for a Project lifetime of 30-years to ensure that GHG reduction measures address construction GHG emissions as part of the operational reduction strategies. However, as long-term emissions are considered minimal for the proposed Project (see paragraph below), and operational emissions were not analyzed, this particular approach does not apply to this Project.

Long-Term Emissions

The majority of operational emissions would be from the infrequent visits by vehicles driven by maintenance personnel. This and any other maintenance-related activity will not result in additional sources of emissions when compared to the existing maintenance routine of the current MDPs for the area. Therefore, long-term impacts related to the San Jacinto Valley MDP facility operation are considered negligible, and were not evaluated.

Total Project CO₂ Emissions

Although it is uncertain which screening level applies to infrastructure projects, the proposed Project's CO₂ emissions of 2,373 MtCO₂ from construction emissions do not exceed the SCAQMD recommended screening level of 3,000 MtCO₂/year for commercial projects, which is a lower than the level for industrial projects. As previously stated, the CARB has yet to identify a quantitative threshold level for residential or commercial projects and the threshold level for industrial projects is 7,000 MtCO₂/year from non-transportation sources.

Due to the level of estimated emissions, no mitigation is required to reduce GHG. SCAQMD's recommendation of reducing the Project energy use and water use even when the Project-related emissions are below the screening level does not apply to this Project. The operations of MDP facilities do not require energy usage. In addition, the Project transports storm water and does not include or require water usage.

The proposed Project's annual CO₂ operational emissions will not exceed the SCAQMD recommended Tier 3 screening level of significance for commercial or industrial projects. The SCAQMD additional requirements for energy and water usage do not apply to the Project. The CARB has not yet developed a quantitative threshold for commercial projects and the currently recommended performance standards for construction and operation of commercial projects also do not apply to the SJV-MDP. Therefore, the impact is considered **less than significant**.

Threshold: *Exposing sensitive receptors to substantial pollutant concentrations.*

Based on the preceding LST analysis of the proposed Project, the short-term construction of the SJV-MDP facilities will not result in any localized air quality impacts to sensitive receptors within the Project area for NO_x or CO, during construction of Project facilities; however, emissions of PM-10 and PM-2.5 during construction are above SCAQMD recommended daily thresholds. Therefore, exposure of sensitive receptors to substantial pollution concentrations from short-term construction emissions is **considered significant**. Due to the lack of stationary source emissions; no long-term localized significance threshold analysis is needed, and exposure of sensitive receptors to substantial pollution concentrations from long-term operational impacts is considered **less than significant**.

3.3.7 Proposed Mitigation Measures

An Environmental Impact Report is required to describe feasible mitigation measures which could minimize significant adverse impacts (CEQA Guidelines, Section 15126.4). Mitigation measures were evaluated for their ability to reduce or eliminate impacts.

In addition to compliance with SCAQMD Rule 403 (see p. 3.1-27) for Project construction, the following mitigation measures shall be implemented:

MM Air 1: During construction, ozone precursor emissions from all vehicles and construction equipment shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturers' specifications to the satisfaction of the jurisdiction in which the construction is taking place, i.e., San Jacinto Public Works Department, Hemet Public Works Department, Riverside County Department of Building and Safety, or RCFCWCD. Equipment maintenance records and equipment design specification data sheets shall be kept on site during construction. Compliance with this measure shall be subject to periodic verification by the San Jacinto Public Works Department, Hemet Public Works Department, Riverside County Building and Safety Department, or RCFCWCD.

MM Air 2: Signs shall be posted stating that all vehicles are prohibited from idling in excess of five minutes, both on and off site.

MM Air 3: Electricity from power poles shall be used instead of temporary diesel- or gasoline-powered generators to reduce the associated emissions.

MM Air 4: To reduce construction vehicle (truck) and equipment idling while waiting to enter/exit the site, the contractor shall submit a traffic control plan that will describe in detail safe detours to prevent traffic congestion to the best of the Project's ability, and provide temporary traffic control measures. To reduce traffic congestion, and therefore NO_x, the plan shall include, as necessary, appropriate, and practicable the following: dedicated turn lanes for movement of construction trucks and equipment on and off site, scheduling of construction activities that affect traffic flow on the arterial system to off-peak hour, rerouting of construction trucks away from congested streets or sensitive receptors, and/or signal synchronization to improve traffic flow.

3.3.8 Summary of Environmental Effects After Mitigation Measures Are Implemented

In an effort to reduce estimated emissions, the mitigation measures listed above were considered. **MM Air 1** through **4** are associated with reduction in construction-related emissions for NO_x, PM-10 and PM-2.5.

Although implementation of mitigation measures **MM Air 1** through **4**, will reduce Project-generated emissions, there are no distinct SCAQMD established quantitative reductions associated with them; therefore, to be conservative, it is assumed that there is no change in the estimated emissions of the Project from those mitigation measures. The Project's short-term

construction emissions will still exceed the SCAQMD regional significance thresholds for NO_x, PM-10, and PM-2.5. Short-term construction will also exceed applicable localized significance thresholds (LST) for PM-10 and PM-2.5.

The Project is not considered to have a cumulatively considerable net increase on ozone and PM-10, which are non-attainment in the region under both state and federal standards, and the impact is considered less than significant without mitigation required.

The Project's GHG emissions are also not considered to have a cumulatively considerable and thus less than significant impact due to the estimated GHG emissions levels and the temporary nature of construction.

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3.4 BIOLOGICAL RESOURCES

The focus of the following discussion and analysis is related to the Project's potential impacts to wildlife movement, riparian habitat, wetlands, and local policies; potential adverse impacts related to endangered or threatened species, sensitive or special status species from implementation of the proposed Project. Additionally, the Project's potential impact on the relationship of the Project to an adopted or approved local, regional, or state conservation plan will be discussed.

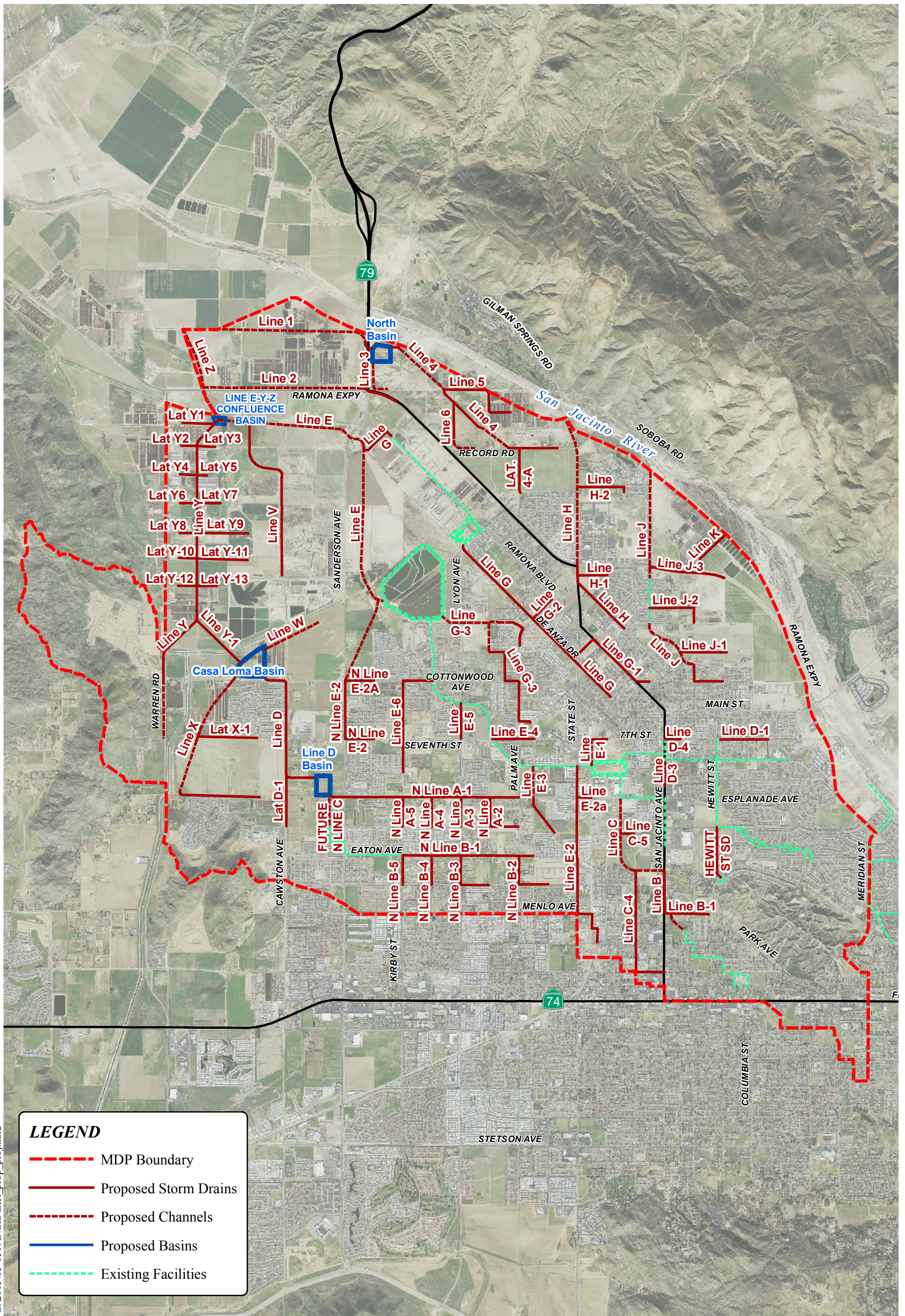
In addition to other documents, the following references were used in the preparation of this section of the DEIR:

- Glenn Lukos Associates, Inc., *General Biological Assessment*, February 17, 2009. (Appendix C)
- County of Riverside, *Western Riverside County Multiple Species Habitat Conservation Plan*, Adopted June 17, 2003. (Available at the County of Riverside Planning Department or available at <http://www.rcip.org/conservation.htm>, accessed on May 4, 2009.)
- County of Riverside, *County of Riverside General Plan, San Jacinto Valley Area Plan*, October 2003. (Available at the County of Riverside Planning Department, at <http://www.rctlma.org/genplan/content/ap2/sjvap.html>, accessed May 4, 2009.) (COR SJVAP)
- City of San Jacinto Planning Department, *San Jacinto General Plan Draft EIR*, January 2006. (Available at <http://www.ci.san-jacinto.ca.us/city-govt/general-plan-EIR.html>, accessed on May 4, 2009.) (SJGP DEIR)
- City of San Jacinto Planning Department, *City of San Jacinto General Plan*, January 2006. (Available at <http://www.ci.san-jacinto.ca.us/city-govt/general-plan-EIR.html>, accessed on May 4, 2009.) (SJGP)
- City of Hemet, *City of Hemet General Plan*, August 25, 1992. (Available at the City of Hemet Planning Department.) (HGP)

The following discussion is a summary of the *General Biological Assessment* (“Biological Assessment”) prepared for the proposed Project by Glenn Lukos Associates, Inc., February 17, 2009. Glenn Lukos conducted general biological surveys and habitat assessments for special-status plants and wildlife for those properties within the Project area where access was granted. For areas with restricted access, assessments were limited to roadside surveys.

3.4.1 Setting

The Project area includes existing residential, public facilities, agricultural land uses such as a commercial chicken farm and dairy operations, and active croplands (**Figure 3.4-1**). The proposed Project is located on the floor of the San Jacinto Valley. Topography of the site is generally flat ranging from 1,400 to 1,700 feet in elevation above sea level.

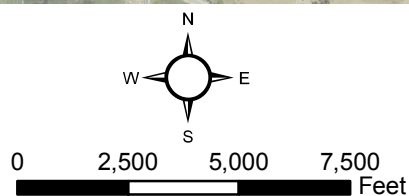


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LEGEND

- - - MDP Boundary
- Proposed Storm Drains
- - - Proposed Channels
- Proposed Basins
- - - Existing Facilities

Sources: County of Riverside, 2009;
 Digital Globe, April 2008.



**Figure 3.4-1
 Master Drainage Plan**

3.4.1.1 Vegetation

Nearly all of the Project area has been disturbed to some degree, including the survey alignments and surrounding lands. Approximately 60 acres of the survey alignments extend through developed areas, including residential properties, public facilities, commercial chicken farm and dairy operations, and paved and dirt roads; with another 100 acres of the alignments containing active croplands. Approximately 6.38 acres of the SJV-MDP alignments contained native riparian vegetation, including willow (*Salix* spp.), mule fat (*Baccharis salicifolia*), and Fremont’s cottonwood (*Populus fremontii*). Much of the riparian vegetation occurs in scattered isolated patches, though at least one of the surveyed alignments terminates at the edge of extensive riparian habitat associated with the San Jacinto River.

The remaining majority of the SJV-MDP alignments extend through disturbed areas supporting a predominance of non-native and native ruderal vegetation, including non-native grasses, though these areas are often interspersed with remnants of alkali playa vegetation. Some of the remnant alkali playa areas exhibited evidence of seasonal ponding, though at the time of the surveys, there was not enough vegetation to adequately evaluate the features as vernal pools. **Table 3.4-A** provides a summary of vegetation/land use types mapped for the site.

Table 3.4-A, Vegetation/Land Use Types for the MDP

Vegetation/Land Use Type	Area (Acres)
Disturbed	203.37
Field Croplands	101.36
Residential/Urban/Exotic	60.89
Riparian Forest	6.38
No Access	11.22
Total Acreage	383.22

Sensitive Plant Species

The Project site is located within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Criteria Area Plant Species Survey Area 3 which includes the following target species: San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*), Davidson’s saltbush (*Atriplex serenana* var. *davidsonii*), Parish’s brittlescale (*Atriplex parishii*), thread-leaved brodiaea (*Brodiaea filifolia*), smooth tarplant (*Centromadia pungens* ssp. *laevis*), round-leaved filaree (*Erodium macrophyllum*), Coulter’s goldfields (*Lasthenia glabrata* ssp. *coulteri*), little mousetail (*Myosurus minimus*), and mud nama (*Nama stenocarpum*). Smooth tarplant (*Centromadia pungens* ssp. *laevis*) was detected along several alignments within the Project area. See **Table 3.4-B, Special-Status Plants**, for the potential of Criteria Plants occurring on site.

Narrow Endemic Plant Species

The western/central portion of the Project area is located within the Narrow Endemic Plant Species Survey Area 3 which includes the following target species: Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), many-stemmed dudleya (*Dudleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California orcutt's grass (*Orcuttia californica*, and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*). No narrow endemic plant species were observed within the Project area during the surveys; however, suitable habitat exists within the Project area site (see **Table 3.4-B, Special-Status Plants**) for potential for occurrence on site. Plant species were evaluated based on a number of factors, including: 1) species identified by the CNDDDB as occurring (either currently or historically) on or in the vicinity of the property, 2) MSHCP species survey areas for which the property occurs within, 3) planning species identified by the San Jacinto Valley Area Plan, and 4) any other special-status plants that are known to occur within the vicinity of the property, or for which potentially suitable habitat occurs on site.

Sensitive Vegetation Communities

Special-status habitat types are those vegetation communities that support rare, threatened, or endangered plant or wildlife species or are diminishing and are of special concern to resource agencies. Sensitive and/or protected habitat types within the Project area include riparian habitats. The Western Riverside MSHCP provides protection for sensitive vegetation communities.

The biologists mapped "riparian" vegetation throughout the SJV-MDP study area, regardless of whether it qualified as MSHCP riparian vegetation or should be excluded from this designation (e.g., artificial creation). Approximately 6.38 acres of the SJV-MDP alignments contained native riparian vegetation, including willow (*Salix* spp.), mule fat (*Baccharis salicifolia*), and Fremont's cottonwood (*Populus fremontii*). Much of the riparian vegetation occurs in scattered isolated patches, though at least one of the surveyed alignments terminates at the edge of extensive riparian habitat associated with the San Jacinto River. The remaining majority of the MDP alignments extend through disturbed areas supporting a predominance of non-native and native ruderal vegetation, including non-native grasses, though these areas are often interspersed with remnants of alkali playa vegetation. Some of the remnant alkali playa areas exhibited evidence of seasonal ponding, though at the time of the biologist's surveys, there was not enough vegetation to adequately evaluate the features as vernal pools.

Table 3.4-B, Special-Status Plants

Species Name	Status	Habitat Requirements	Potential for Occurrence On Site
California Orcutt grass <i>Orcuttia californica</i>	Federal: FE State: SE CNPS: List 1B.1 MSHCP: Covered	Vernal pools.	Low potential to occur on site.
Chaparral sand-verbena <i>Abronia villosa var. aurita</i>	Federal: None State: None CNPS: 1B.1 MSHCP: Not Covered	Sandy soils in sage-scrub, chaparral.	Observed on site.
Coulter's goldfields <i>Lasthenia glabrata ssp. coulteri</i>	Federal: None State: None CNPS: List 1B.1 MSHCP: Covered	Playas, vernal pools, marshes and swamps (coastal salt).	High potential to occur on site.
Davidson's saltscale <i>Atriplex serenana var. davidsonii</i>	Federal: None State: None CNPS: List 1B.3 MSHCP: Covered	Alkaline soils in coastal sage scrub, coastal bluff scrub.	Low potential to occur on site.
Intermediate mariposa lily <i>Calochortus weedii var. intermedia</i>	Federal: None State: None CNPS: List 1B.3 MSHCP: Covered	Rocky/calcareous soils in chaparral, coastal scrub, and valley and foothill grassland.	Not expected to occur on site due to a lack of suitable habitat.
Little mousetail <i>Myosurus minimus ssp. apus</i>	Federal: None State: None CNPS: List 1B.3 MSHCP: Covered	Valley and foothill grassland, vernal pools (alkaline soils).	Low potential to occur on site.
Mud nama <i>Nama stenocarpum</i>	Federal: None State: None CNPS: List 1B.3 MSHCP: Covered	Marshes and swamps.	Low potential to occur on site.
Munz's onion <i>Allium munzii</i>	Federal: FE State: SE CNPS: List 1B.1 MSHCP: Covered	Mesic/clay soils in chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grassland.	Not expected to occur on site due to a lack of suitable habitat.
Parish's brittlescale <i>Atriplex parishii</i>	Federal: None State: None CNPS: List 1B.3 MSHCP: Covered	Chenopod scrub, playas, vernal pools.	Moderate potential to occur on site.
Parry's spineflower <i>Chorizanthe parryi var. parryi</i>	Federal: None State: None CNPS: List 3.2 MSHCP: Covered	Sandy or rocky soils in open habitats of chaparral and coastal sage scrub.	Not expected to occur on site due to a lack of suitable habitat.
Payson's jewel-flower <i>Caulanthus simulans</i>	Federal: None State: None CNPS: List 1B.3 MSHCP: Covered	Chaparral. And coastal sage scrub (sandy or granitic)	Not expected to occur on site due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Potential for Occurrence On Site
Salt spring checkerbloom <i>Sidalcea neomexicana</i>	Federal: None State: None CNPS: List 2.2 MSHCP: Covered	Found in alkali springs and marshes within creosote bush scrub, chaparral, yellow pine forest, coastal sage scrub and alkali sink.	Not expected to occur on site due to a lack of suitable habitat.
San Diego ambrosia <i>Ambrosia pumila</i>	Federal: FE State: None CNPS: 1B.1 MSHCP: Covered	Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools. Often in disturbed habitats.	Moderate potential to occur on site.
San Jacinto Valley crownscale <i>Atriplex coronata</i> var. <i>notatior</i>	Federal: None State: None CNPS: List 1B.3 MSHCP: Covered	Alkaline soils in chenopod scrub, valley and foothill grassland, vernal pools.	Moderate potential to occur on site.
Slender-horned spineflower <i>Dodecahema leptoceras</i>	Federal: FE State: SE CNPS: List 1B.1 MSHCP: Covered	Sandy soils in alluvial scrub, chaparral, cismontane woodland.	Not expected to occur on site due to a lack of suitable habitat.
Smooth tarplant <i>Centromadia pungens</i> ssp. <i>laevis</i>	Federal: None State: None CNPS: List 1B.1 MSHCP: Covered	Alkaline soils in chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grasslands, disturbed habitats.	Observed on site.
South coast saltscale <i>Atriplex pacifica</i>	Federal: None State: None CNPS: List 1B.3 MSHCP: Not covered	Coastal bluff scrub, coastal dunes, coastal sage scrub, playas.	Moderate potential to occur on site.
Spreading navarretia <i>Navarretia fossalis</i>	Federal: FT State: None CNPS: List 1B.1 MSHCP: Covered	Vernal pools, playas, chenopod scrub, marshes and swamps (assorted shallow freshwater).	Moderate potential to occur on site.
Thread-leaved brodiaea <i>Brodiaea filifolia</i>	Federal: None State: None CNPS: List 1B.3 MSHCP: Covered	Clay soils in chaparral (openings), cismontane woodland, coastal sage scrub, playas, valley and foothill grassland, vernal pools.	Moderate potential to occur on site.
Wright's trichocoronis <i>Trichocoronis wrightii</i> var. <i>wrightii</i>	Federal: None State: None CNPS: List 2.1 MSHCP: Covered	Alkaline soils in meadows and seeps, marshes and swamps, riparian scrub, vernal pools.	Low potential to occur on site.

Federal

FE – Federally Endangered
 FT – Federally Threatened

State

SE – State Endangered
 ST – State Threatened

CNPS List

List 1B – Plants rare, threatened, or endangered in California and elsewhere.

List 2 – Plants rare, threatened, or endangered in California, but more common elsewhere.

List 3 – Plants about which more information is needed.

List 4 – Plants of limited distribution.

CNPS Threat Code Extensions

0.1 – Seriously endangered in California

0.2 – Fairly endangered in California

0.3 – Not very endangered in California

3.4.1.2 Wildlife

Three species of migratory birds, with some potential to occur within the Project area as transient individuals during migration, are the least Bell’s vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii traillii*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*). The yellow-billed cuckoo would not be expected to breed within the Project area due to a lack of suitable habitat. The southwestern willow flycatcher has the potential to breed within the San Jacinto River, but would not be expected to breed within the Project area. The least Bell’s vireo occupies portions of the nearby San Jacinto River, and may have the potential to breed within scattered isolated riparian vegetation within the Project area, though the opportunity is extremely limited. In particular, one area of isolated riparian habitat was mapped adjacent to the San Jacinto River that provides a moderate potential for use by the least Bell’s vireo (see **Figure 3.4-2, Potential MSHCP Riparian Areas**).

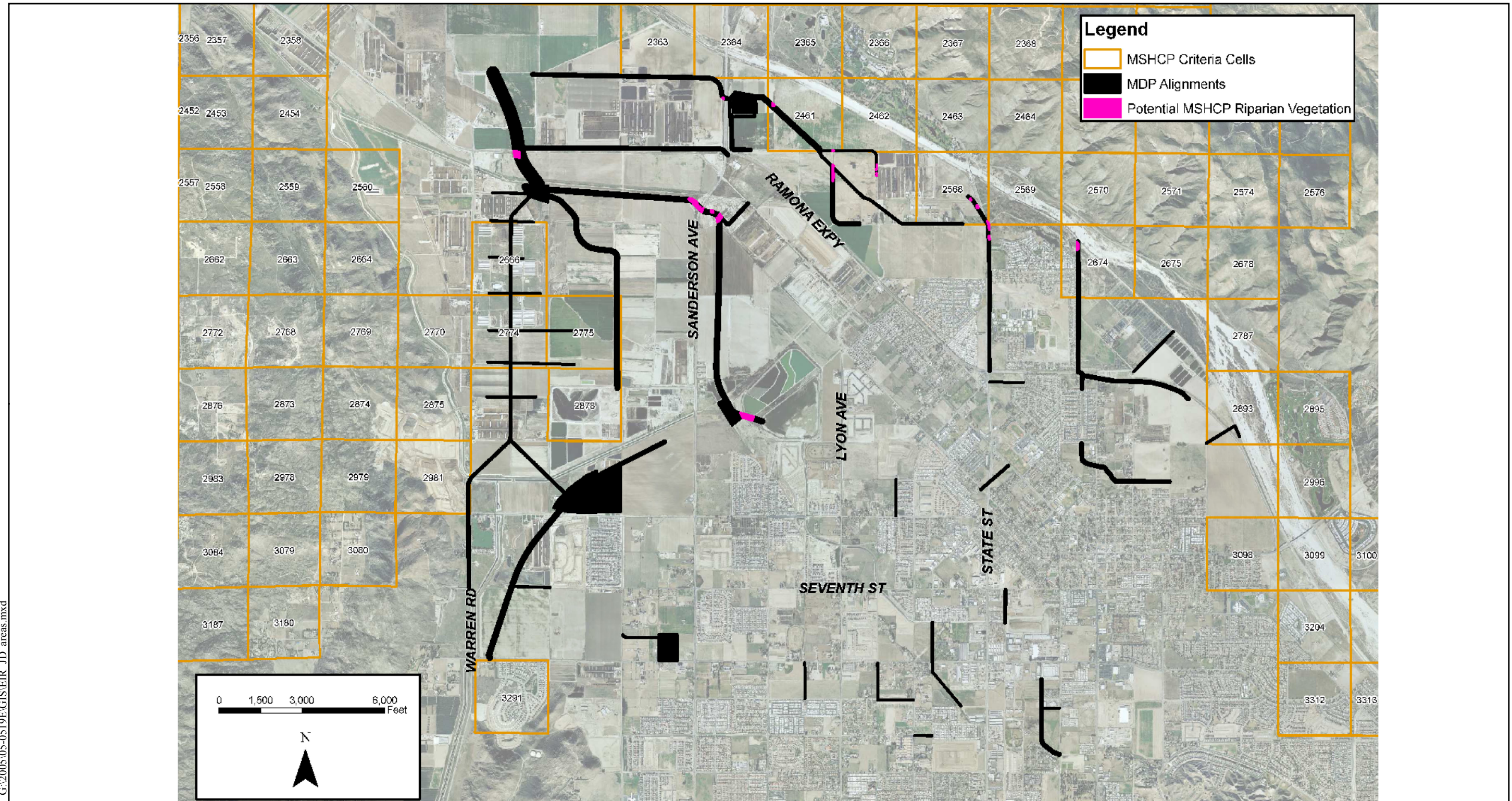
There is a possibility for the presence of fairy shrimp (*Branchinecta lynchi*) within the Project area. The biologists noted some scattered “playa” areas surrounding the chicken ranch property [located within MSHCP Proposed Noncontiguous Habitat Block 6 by the (Cell Group V, and Cells 2775 and 2878)] and adjacent lands within the Project area; these areas could not be adequately evaluated for vernal pools/fairy shrimp due to seasonal constraints.

Sensitive Wildlife Species

The MSHCP designates survey areas for the western burrowing owl, small mammals, and amphibians. The majority of the Project alignments occur within the burrowing owl survey area. The extreme northern end of Line J and K terminates at the edge of the mammal survey area for Los Angeles pocket mouse (LAPM) and San Bernardino kangaroo rat (SBKR) however, the rest of the proposed facilities’ Project alignments are located outside of the mammal survey areas. The Project area does not coincide with the amphibian survey areas.

The focused burrowing owl surveys determined that potential burrowing owl burrows and suitable burrowing owl habitat exists within the Project area, however no burrowing owls, occupied burrows, or signs were detected in the areas that could be accessed during the focused surveys.

Although LAPM and SBKR have both been documented in the active channel portions of the San Jacinto River, the areas potentially affected by SJV-MDP facilities are mostly unsuitable for both species.



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Source: Glenn Lukos Assoc., Feb. 2009

Figure 3.4-2
Potential MSHCP Riparian Areas

Table 3.4-C, Special Status Animals, shows the potential for occurrence of sensitive species on site. Animal species were evaluated based on a number of factors, including: 1) species identified by the CNDDDB as occurring (either currently or historically) on or in the vicinity of the property, 2) MSHCP species survey areas for which the property occurs within, 3) planning species identified by the San Jacinto Valley Area Plan, and 4) any other special-status animals that are known to occur within the vicinity of the property, or for which potentially suitable habitat occurs on site.

Table 3.4-C, Special-Status Animals

Species Name	Status	Habitat Requirements	Potential for occurrence
Bell's sage sparrow <i>Amphispiza belli belli</i>	Federal: FSC State: None CDFG: CSC MSHCP: Covered	Chaparral and coastal sage scrub along the coastal lowlands, inland valleys, and in the lower foothills of local mountains.	Not expected to occur on site due to lack of suitable habitat.
Burrowing owl <i>Athene cunicularia</i>	Federal: FSC State: None CDFG: CSC MSHCP: Covered	Shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), coastal dunes, desert floors, and some artificial, open areas as a year-long resident. Occupies abandoned ground squirrel burrows as well as artificial structures such as culverts and underpasses.	High potential to occur on site.
California horned lark <i>Eremophila alpestris actia</i>	Federal: None State: None CDFG: CSC MSHCP: Covered	Occupies a variety of open habitats, usually where trees and large shrubs are absent.	High potential to occur on site.
Coast (San Diego) horned Lizard <i>Phrynosoma coronatum (blainvillii</i> population)	Federal: None State: None CDFG: CSC MSHCP: Covered	Chaparral and coastal sage scrub	Low potential to occur on site.
Coastal California gnatcatcher <i>Poliptila californica californica</i>	Federal: FT State: None CDFG: CSC MSHCP: Covered	Low elevation coastal sage scrub and coastal bluff scrub.	Not expected to occur on site due to lack of suitable habitat.
Coastal western whiptail <i>Aspidoscelis tigris stejnegeri</i>	Federal: None State: None CDFG: CSC MSHCP: Covered	Open, often rocky areas with little vegetation, or sunny microhabitats within scrub or grassland associations.	Not expected to occur on site due to lack of suitable habitat.

Species Name	Status	Habitat Requirements	Potential for occurrence
Cooper's hawk (nesting) <i>Accipiter cooperi</i>	Federal: None State: None CDFG: CSC MSHCP: Covered	Primarily occurs in riparian areas and oak woodlands, most commonly in montane canyons. Known to use urban areas, occupying trees among residential and commercial.	High potential to occur on site, both for foraging and nesting.
Golden eagle <i>Aquila chrysaetos</i>	Federal: None State: None CDFG: CSC MSHCP: Covered	In southern California, occupies grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys. Nests on rock outcrops and ledges.	High potential to occur on site for foraging. No nesting habitat on site
Least Bell's vireo <i>Vireo bellii pusillus</i>	Federal: FE State: SE CDFG: None MSHCP: Covered with special survey requirements	Dense riparian shrubbery, preferably where flowing water is present.	Low potential to occur on site.
Loggerhead shrike <i>Lanius ludovicianus</i>	Federal: FSC State: None CDFG: CSC MSHCP: Covered	Forages over open ground within areas of short vegetation, pastures with fence rows, old orchards, mowed roadsides, cemeteries, golf courses, riparian areas, open woodland, agricultural fields, desert washes, desert scrub, grassland, broken chaparral and beach with scattered shrubs.	High potential to occur on site.
Long-eared owl <i>Asio otus</i>	Federal: None State: None CDFG: CSC MSHCP: Covered	Inhabit dense vegetation close to grasslands, as well as open forests shrub lands from sea level up to 2000 m elevation. They are common in tree belts along streams of plains and even desert oases. They can also be found in shelterbelts, small tree groves, thickets surrounded by wetlands, grasslands, marshes and farmlands.	Moderate potential to occur on site for foraging.
Los Angeles pocket mouse <i>Perognathus longimembris brevinasus</i>	Federal: None State: None CDFG: CSC MSHCP: Covered	Fine, sandy soils in coastal sage scrub and grasslands.	Low potential to occur on site.
Mountain plover (wintering) <i>Charadrius montanus</i>	Federal: None State: None CDFG: CSC MSHCP: Covered	Does not nest in California. Occurs within the state only during the wintering season. Largest numbers winter among grasslands and agricultural areas within the interior areas of the state.	High potential to occur on site for winter foraging.

Species Name	Status	Habitat Requirements	Potential for occurrence
Northern harrier (nesting) <i>Circus cyaneus</i>	Federal: None State: None CDFG: CSC MSHCP: Covered	Found mainly in open habitats such as fields, savannas, meadows, marshes, upland prairies, and desert steppe. Also occur in agricultural areas and riparian zones. Densest populations are found in large expanses of undisturbed, open habitats with dense, low vegetation.	High potential to occur on site foraging, though not expected to nest on site due to a lack of suitable habitat.
Northwestern San Diego pocket mouse <i>Chaetodipus fallax fallax</i>	Federal: None State: None CDFG: CSC MSHCP: Covered	Coastal sage scrub, sage scrub/grassland ecotones, and chaparral.	Low potential to occur on site.
Orange-throated whiptail <i>Cnemidophorus hyperythrus</i>	Federal: None State: None CDFG: CSC MSHCP: Covered	Coastal sage scrub, chaparral, non-native grassland, oak woodland, and juniper woodland.	Low potential to occur on site.
Prairie falcon (nesting) <i>Falco mexicanus</i>	Federal: None State: None CDFG: CSC MSHCP: Covered	Require cliffs or rocky promontories for breeding; forage over grassland, sagebrush flats, desert, agricultural land, ranches and coastal plains.	High potential to occur on site for foraging, though not expected to nest on site due to a lack of suitable habitat.
Riverside fairy shrimp <i>Streptocephalus woottoni</i>	Federal: FE State: None CDFG: None MSHCP: Covered	Restricted to deep seasonal vernal pools, vernal pool-like ephemeral ponds, and stock ponds.	Low potential to occur on site.
San Bernardino kangaroo rat <i>Dipodomys merriami parvus</i>	Federal: FE State: None CDFG: CSC MSHCP: Covered	Typically found in Riversidean alluvial fan sage scrub and sandy loam soils, alluvial fans and floodplains, and along washes with nearby sage scrub.	Low potential to occur on site.
San Diego black-tailed jackrabbit <i>Lepus californicus bennettii</i>	Federal: None State: None CDFG: CSC MSHCP: Covered	Occupies a variety of habitats, but is most common among shortgrass habitats. Also occurs in sage scrub, but needs open habitats.	High potential to occur on site.
San Diego desert woodrat <i>Neotoma lepida intermedia</i>	Federal: None State: None CDFG: CSC MSHCP: Covered	Found in a variety of shrub and desert habitats, primarily associated with rock outcroppings, boulders, cacti, or areas of dense undergrowth.	Not expected to occur on site due to lack of habitat.
Sharp-shinned hawk (nesting) <i>Accipiter striatus</i>	Federal: None State: None CDFG: CSC MSHCP: Covered	The woodland areas that the hawk occupies range from boreal coniferous, mixed deciduous, bushy and riparian areas, savanna woodlands, and urban areas.	Potential to occur on site for foraging. Not expected to nest on site (outside of nesting range)

Species Name	Status	Habitat Requirements	Potential for occurrence
Southwestern pond turtle <i>Actinemys marmorata pallida</i>	Federal: None State: None CDFG: CSC MSHCP: Covered	Prefers streams, large rivers, slow-moving sloughs, and quiet waters. Aquatic habitats with adequate vegetative cover and exposed banks are preferred, but significant time is spent on upland terrestrial habits as well. Abundant basking sites and cover necessary, including logs, rocks, submerged vegetation, and undercut banks.	Not expected to occur on site due to lack of suitable habitat.
Southwestern willow flycatcher <i>Empidonax traillii extimus</i>	Federal: FE State: SE CDFG: None MSHCP: Covered	Breeds in dense riparian habitats along rivers, streams, or other wetlands.	Potential to occur on site as a transient species, though not expected breed on site due to a lack of suitable habitat.
Stephens' kangaroo rat <i>Dipodomys stephensi</i>	Federal: FE State: ST CDFG: None MSHCP: Covered	Open grasslands or sparse shrublands with less than 50% vegetation cover during the summer and sandy or sandy loam soils.	Low potential to occur on site.
Tricolored blackbird (nesting colony) <i>Agelaius tricolor</i>	Federal: FSC State: None CDFG: CSC MSHCP: Covered	Found in cattail or tule marshes; forages in fields and farms.	Moderate potential to occur on site.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	Federal: FT State: None CDFG: None MSHCP: Covered	Restricted to seasonal vernal pools. Prefers cool-water pools that have low to moderate dissolved solids.	Low potential to occur on site.
Western yellow billed cuckoo <i>Coccyzus americanus</i>	Federal: None State: SE CDFG: None MSHCP: Covered	Prefers moist thickets, willows, overgrown pastures, and orchards.	Not expected to occur on site due to lack of suitable habitat.
White-faced ibis (nesting colony) <i>Plegadis chihi</i>	Federal: FSC State: None CDFG: CSC MSHCP: Covered	Winter foraging occurs in wet meadows, marshes, ponds, lakes, rivers, and agricultural fields. Requires extensive marshes for nesting.	High potential to occur on site foraging though not expected to support a nesting colony.
White-tailed kite (nesting) <i>Elanus leucurus</i>	Federal: FSC State: None CDFG: CFP MSHCP: Covered	Usually found in open groves, river valleys, marshes and grasslands. Preference for perching and nesting and open ground.	High potential to occur on site for foraging, though not expected to nest on site due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Potential for occurrence
Yellow-breasted chat <i>Icteria virens</i>	Federal: None State: None CDFG: CSC MSHCP: Covered	Restricted to woodland edges and dense riparian thickets in dry, open habitats. Dense cover is important for foraging. Found frequently in farms, overgrown fields and abundant thickets.	Low potential to occur on site.
Yellow warbler <i>Dendroica petechia</i>	Federal: None State: None CDFG: CSC MSHCP: Covered	Preferred habitats include edges of marshes and swamps, willow-lined streams, leafy bogs, thickets, orchards, farmlands, forest edges, and suburban yards and gardens.	High potential to occur on site.

Federal	State
FE – Federally Endangered	SE – State Endangered
FT – Federally Threatened	ST – State Threatened
FPT – Federally Proposed Threatened	CSC – California Species of Concern
FSC – Federal Species of Concern	CFP – California Fully-Protected Species

3.4.1.3 Jurisdictional Resources

Pursuant to Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (ACOE) regulates the discharge of dredged and/or fill material into waters of the United States. The term “waters of the United States” is defined in the ACOE regulations at 33 CFR 328.3(a) as:

- (1) *All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;*
- (2) *All interstate waters including interstate wetlands;*
- (3) *All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect foreign commerce including any such waters:*
 - (i) *Which are or could be used by interstate or foreign travelers for recreational or other purposes; or*
 - (ii) *From which fish or shell fish are or could be taken and sold in interstate or foreign commerce; or*
 - (iii) *Which are used or could be used for industrial purpose by industries in interstate commerce...*
- (4) *All impoundments of waters otherwise defined as waters of the United States under the definition;*
- (5) *Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;*
- (6) *The territorial seas;*
- (7) *Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1)-(6) of this section. Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act (other than*

cooling ponds defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States.

- (8) *Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA.*

In the absence of wetlands, the limits of the ACOE jurisdiction in non-tidal waters, such as intermittent streams, extends to the ordinary high water mark (OHWM) which is defined in 33 CFR 328.3(e) as: *...that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider characteristics of the surrounding area.*"

The term "wetlands" (a subset of "waters of the United States") is defined in 33 Code of Federal Regulations (CFR 328.3(b)) as *"those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support ... a prevalence of vegetation typically adapted for life in saturated soil conditions."* In 1987 the ACOE published the *Wetland Delineation Manual*, a manual to guide its field personnel in determining jurisdictional wetland boundaries. In December 2006, the ACOE issued a special public notice of availability of the *Arid West Supplement to the 1987 Wetlands Delineation Manual*. Both the *1987 Wetland Delineation Manual* and the *Arid West Supplement* were used to guide the delineation and evaluate on-site soils.

The methodology set forth in the *1987 Wetland Delineation Manual*, generally requires that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit, at least minimal hydric characteristics. A wetland should normally meet each of the following three criteria:

- More than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the *National List of Plant Species that Occur in Wetlands*, Reed, P.B., Jr. 1988, *U.S. Fish and Wildlife Service Biological Report 88(26.10)*);
- Soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and
- Hydrologic characteristics must indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year.

Pursuant to Division 2, Chapter 6, Sections 1600–1603 of the California Fish and Game Code, the California Department of Fish and Game (CDFG) regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake which supports fish or wildlife. CDFG defines a "stream" (including creeks and rivers) as, *"a body of water that*

flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation.” CDFG’s definition of “lake” includes “natural lakes or man-made reservoirs.”

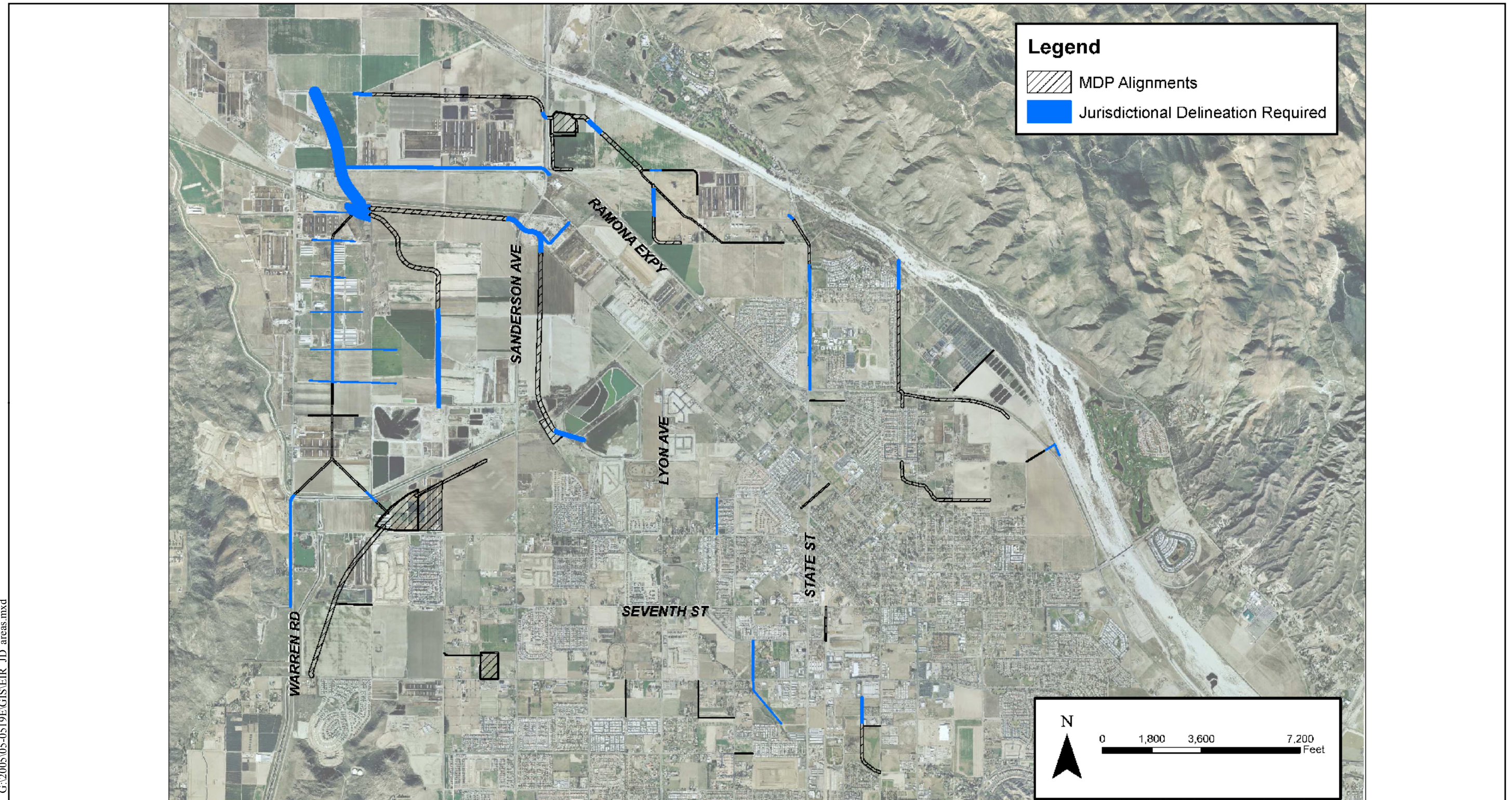
CDFG jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife. CDFG Legal Advisor has prepared the following option:

- Natural waterways that have been subsequently modified and which have the potential to contain fish, aquatic insects, and riparian vegetation will be treated like natural waterways...
- Artificial waterways that have acquired the physical attributes of natural stream courses and which have been viewed by the community as natural stream courses, should be treated by [CDFG] as natural waterways...
- Artificial waterways without the attributes of natural waterways should generally not be subject to Fish and Game Code provisions...

CDFG jurisdiction closely mirrors that of the ACOE. Exceptions include CDFG’s exclusion of isolated wetlands (those not associated with a river, stream, or lake), the addition of artificial stock ponds and irrigation ditches constructed in uplands, and the addition of riparian habitat supported by a river, stream, or lake regardless of the riparian area’s federal wetlands status.

The Project area contains numerous drainage and other aquatic features, including various agricultural and non-agricultural roadside ditches, and basins, and the Project will outlet into the San Jacinto River at several locations (see Section 3.7 of this Draft EIR for details). Potentially jurisdictional features were mapped where access was allowed (see **Figure 3.4-3, Areas Requiring Jurisdictional Delineation**). If the roadside ditches and other ditches are shown to be historic diversions of natural waters, then they could be potentially jurisdictional waters.

However, the majority (if not all) of these ditches may be considered as non-Relatively Permanent Waters (RWPs), and so these features will need to be evaluated, by facility-specific jurisdictional delineations, to determine if they exhibit a significant nexus to Traditional Navigable Waters (TNWs), and therefore, jurisdictional themselves. Ditches that are shown to have been wholly excavated in uplands would not be subject to the jurisdiction of the ACOE. Areas supporting hydrophytic vegetation (such as riparian areas identified in **Figure 3.4-2** would need to be evaluated to determine whether they satisfy wetland criteria.



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Source: Glenn Lukos Assoc., Feb. 2009

Figure 3.4-3
Areas Requiring Jurisdictional Delineation

3.4.2 Comments Received in Response to the Notice of Preparation

Comment letters were received from the California Department of Fish and Game (dated May 11, 2009), the United States Department of Fish and Wildlife (dated June 5, 2009), and the California Regional Water Quality Control Board, Santa Ana Region (dated May 15, 2009) in response to the NOP. The contents of these letters, which are included in Appendix A, are summarized below.

Summary of Comments Received from the California Department of Fish and Game

The California Department of Fish and Game (CDFG) notes the Project is within and adjacent to Criteria Cells of the MSHCP and requests the Draft EIR adequately address potential impacts on species and habitats covered under the MSHCP.

Specifically, CDFG indentified concerns regarding:

- impacts to hydrology and geologic resources within the existing drainage facilities;
- release of stormwater runoff and non-point discharges to the San Jacinto River;
- impacts to sensitive species and habitats;
- potential growth inducing impacts; and
- reduction of the 100-year floodplain.

CDFG requested the Draft EIR:

- distinguish between measures to address existing flooding problems and measures to facilitate and enable new development;
- identify mitigation and address cumulative impacts of the MDP facilities instead of relying upon individual projects to provide analysis and mitigation;
- contain specific, up-to-date biological information on existing habitat and species, identify measures to minimize and avoid sensitive resources, and identify mitigation measures to offset the loss of native flora, fauna, and state waters; and
- include an alternatives analysis on environmental resources and in-kind mitigation measures for significant impacts.

CDFG also requested updated biological studies be conducted prior to any environmental or discretionary approvals and identified the information that should be included in any focused biological report or supplemental environmental report.

CDFG also noted opposition to the elimination of watercourses and/or their channelization or conversion to subsurface drains and indicated that all wetlands and watercourses must be retained with setbacks to preserve riparian and aquatic values to on-site and off-site wildlife populations.

CDFG recommended the Draft EIR incorporate all information regarding impacts to lakes, streams, and associated habitat; and the applicant and/or lead agency consult CDFG to discuss potential impacts and avoidance, and mitigation measures to avoid subsequent CEQA documentation and facilitate the permitting process in the event a Streambed Alteration Agreement is needed.

Summary of Comments Received from the United States Department of the Interior Fish and Wildlife Service

The United States Department of the Interior Fish and Wildlife Service (USFWS) notes the Project is within and adjacent to Criteria Cells of the MSHCP and requests the Draft EIR adequately address potential impacts on species and habitats covered under the MSHCP.

Specifically, USFWS indentified concerns regarding:

- the potential dewatering of seasonally-flooded alkali vernal plain habitat that is targeted for conservation within the MSHCP Criteria Area and areas within MSHCP-defined survey areas; and
- whether the proposed Drainage Plan would severely alter the hydrology of the region by draining rainfall into detention basins that would not allow for the limited annual flooding and periodic large-scale flooding that is necessary for the survival of MSHCP-covered species.

USFWS requested the Draft EIR:

- address impacts of the Drainage Plan and consistency with the MSHCP rather than deferring to MSHCP consistency reviews on a project-by-project basis; and
- address how the Project will maintain clean seasonal flows to habitats targeted for conservation within the MSHCP Criteria Area.

Summary of Comments Received from California Regional Water Quality Control Board

The California Regional Water Quality Control Board (CRWQCB) requests that the Draft EIR:

- address potentially significant impacts to vernal pools mapped in the western portion of the Project area;
- address how the Project will maintain clean seasonal flows to habitats targeted for conservation within the MSHCP Criteria Area;
- stress a policy of avoidance of riparian and wetland segments and no net loss of wetlands, including avoidance of any impact to their water quality standards and changes to their hydrology;
- where avoidance imposes unreasonable constraints on system segments, such impacts to water quality standards must be minimized and mitigation (beyond simply the acquisition of permits) must replace the full water quality function and value of the water quality standards that existed prior to the impact;

- proactively suggest widening a large (or larger) percentage of the channels and basins to rights-of-way beyond initial consideration, in order to leave them open and earthen; and
- provide a comprehensive analysis of design alternatives, including those that support a variety of environmental benefits while providing the flood control necessary to protect life and property.

The CRWQCB recognizes that:

- the Project will be coordinated with the adjacent San Jacinto River Stage 4 Levee Project, and that the Levee reconfiguration will remove a portion of the floodplain currently under the San Jacinto Regional Area Drainage Plan.
- the Project will provide a drainage plan for this floodplain portion which will indicate BMPs and any applicable inlets to the SJR through the levee embankment.

3.4.3 Thresholds of Significance

San Jacinto has not established local CEQA significance thresholds as described in Section 15064.7 of the State CEQA Guidelines. However, the San Jacinto “Environmental Checklist” for the Project (Appendix A) as well as Hemet’s and RCFCWD’s environmental checklists, indicate that impacts related to Biological Resources may be considered potentially significant if the proposed Project would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service;
- 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;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species or establish native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance; or
- conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan.

3.4.4 Related Regulations

Federal Endangered Species Act

The Federal Endangered Species Act of 1973 (16 U.S.C. 1531-1543) 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. The presence of any federally-threatened or endangered species on a site generally imposes severe constraints on development; particularly if development would result in a “take” of the species or its habitat. The term “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct. Harm in this sense can include any disturbance to habitats used by the species during any portion of its life history. The proposed Project will avoid known occurrences of listed plants and habitat for listed wildlife species or otherwise mitigate potential impacts to these species.

California Endangered Species Act (CESA)

California (Fish and Game Code 2050 *et seq.*) establishes that it is the policy of the state to conserve, protect, restore, and enhance Threatened or Endangered species and their habitats. CESA mandates that state agencies should not approve projects which would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. CESA requires state lead agencies to consult with the CDFG during the CEQA process to avoid jeopardy to threatened or endangered species. CESA prohibits any person from taking or attempting to take a species listed as endangered or threatened (Fish and Game Code Section 2080). Section 2080 of the Fish & Game Code, provides the permitting structure for CESA. The “take” of a state-listed Endangered or Threatened species or Candidate species, will require incidental take permits as authorized by CDFG.

The proposed Project, however, is not expected to require such authorizations as it is not expected to result in “take” of a listed species. The proposed Project will avoid known occurrences of listed plants and habitat for listed wildlife species or otherwise mitigate potential impacts to these species.

Migratory Bird Treaty Act

The Federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code Sections 3503, 3503.5, and 3800 prohibit the take, possession, or destruction of any birds, their nests or eggs. Although limited native habitat communities are present and the Project area is located in a predominately agricultural and developed environment, certain common and special-status bird species, especially raptors, may utilize the Project area for breeding and/or seasonal foraging. The proposed Project will be required to comply with the MTBA and California Fish and Game Code, which prohibits the take of migratory and native bird species or their nests considered to utilize the site.

Multiple Species Habitat Conservation Plan (MSHCP)

The MSHCP serves as a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP), pursuant to Section (a)(1)(B) of the ESA, as well as a Natural Communities Conservation Plan (NCCP) under the State NCCP Act of 2001. The plan encompasses all unincorporated Riverside County land west of the crest of the San Jacinto mountains to the Orange County line, as well as the jurisdictional areas of the cities of Temecula, Murrieta, Lake Elsinore, Canyon Lake, Norco, Corona, Riverside, Moreno Valley, Banning Beaumont, Calimesa, Perris, Hemet, and San Jacinto. The overall biological goal of the MSHCP is to conserve covered species and their habitats, as well as maintain biological diversity and ecological processes while allowing for future economic growth within a rapidly urbanizing region.

Federal and state wildlife agencies approved permits required to implement the MSHCP on June 22, 2004. Implementation of the MSHCP will conserve approximately 500,000 acres of habitat, including land already in public or quasi-public ownership, and about 153,000 acres of land in private ownership that will be purchased or conserved through other means. The money for purchasing private land will come from development mitigation fees as well as state and federal funds.

The MSHCP includes a program for the collection of development mitigation fees; policies for the review of projects in areas where habitat must be conserved; and policies for the protection of riparian areas, vernal pools, and narrow endemic plants. It also includes a program for performing plant, bird, reptile, and mammal surveys. Surveys for criteria area species plants, narrow endemic plants, burrowing owls, Los Angeles pocket mouse, and San Bernardino kangaroo rat were completed for this portion of this Project for which access was available.

The intent of the MSHCP is to ensure the survival of a range of plants and animals and avoid the cost and delays of mitigating biological impacts on a project-by-project basis. It would allow the incidental take (for development purposes) of species currently listed and their habitat. It would also allow the incidental take of some species that are currently not listed, but which might be listed in the future.

Pursuant to the provisions of the MSHCP, all discretionary development projects within the Criteria Area are to be reviewed for compliance with the Property Owner Initiated Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process or equivalent process. The HANS process *“ensures that an early determination will be made of what properties are needed for the MSHCP Conservation Area, that the owners of property needed for the MSHCP Conservation Area are compensated, and that owners of land not needed for the MSHCP Conservation Area shall receive Take Authorization of Covered Species Adequately Conserved through the Permits issued to the County and Cities pursuant to the MSHCP.”*

The proposed MDP Project is a public works project not a development project. If the SJV-MDP facilities or portions of the SJV-MDP facilities were to be constructed by a public agency (such as San Jacinto, Hemet, or RCFCWCD), then the Project will not be subject to the HANS process. If the SJV-MDP facilities or portions of the SJV-MDP facilities were to be constructed by private contractors as part of or as a condition of a development project (i.e., plot plan or tract

map) then the Project would be subject to the HANS process. Portions of the SJV-MDP facilities that are located within the Criteria Area of the MSHCP would be subject to the Joint Project Review (JPR) process, regardless of whether the portion of the SJV-MDP facilities that is in the Criteria Cell is to be built by a private developer or a public agency. The JPR process will be conducted by the Western Riverside County Regional Conservation Authority (RCA) for those SJV-MDP facilities located within an MSHCP criteria area (see **Figure 3.4.2**), to ensure project compliance with the MSHCP prior to construction. The JPR process is not required for portions of SJV-MDP facilities outside of Criteria Areas.

MSHCP mitigation fees for the SJV-MDP will be paid in accordance with Riverside County Ordinance No. 810.2, City of San Jacinto Ordinance No. 05-18, City of Hemet Ordinance No. 1712, and the MSHCP Implementing Agreement, as applicable.

3.4.5 Project Design Considerations

No specific design measures have been implemented that would avoid or reduce potentially significant impacts to sensitive biological resources.

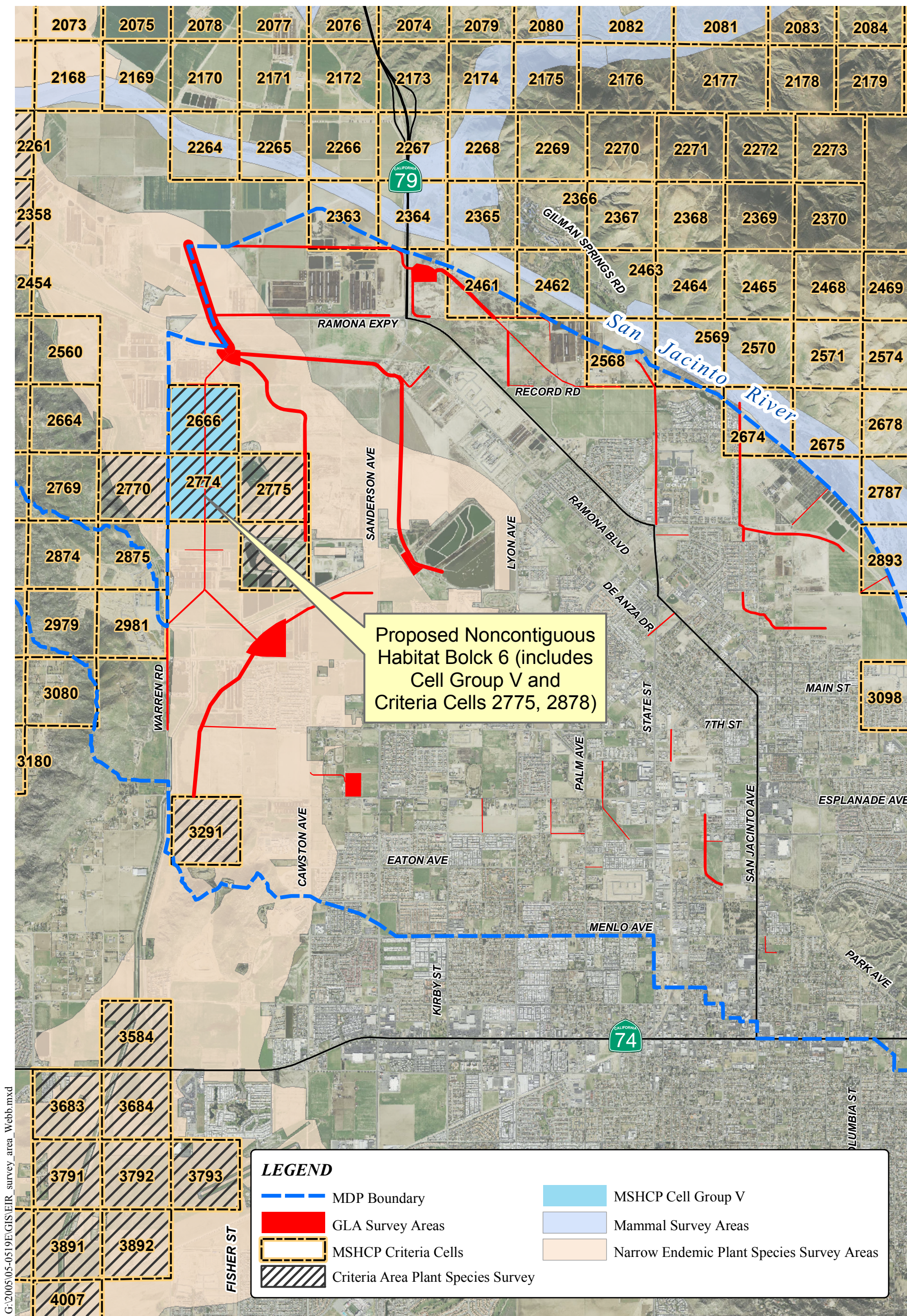
3.4.6 Environmental Impacts Before Mitigation

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

3.4.6.1 Special-Status Plant Species

Areas that support a moderate to high occurrence potential for special status plants are located in western/central portions of the Project area. These areas generally have more potential to support special-status resources due to the presence of suitable habitat.

Twelve of the proposed linear facilities, Line Y, Lat Y-2 through Lat Y-11, and Line V are partially or entirely located within the Criteria Area Plant Species Survey Area (CAPSSA) 3 (see **Figure 3.4-4, Survey Area Map**). Several special-status plant species have low to high potential for occurrence along alignments within the Project area (see **Table 3.4-A**). Plant species with a high potential to occur on site include Smooth tarplant (*Centromadia pungens* ssp. *laevis*) and Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*). Locations of smooth tarplant were detected along the alignments including Line V, Line Y and Lat Y-4 through Lat Y-7). Approximately 25,000 tarplant individuals were counted within the alignments themselves, in addition to tens of thousands more in areas adjacent to the survey alignment. The California Natural Diversity Database (CNDDDB) shows records of smooth tarplant adjacent to Lat Y-1, Lat Y-2, Lat Y-4, Line Z, Line E, and Line Y. The CNDDDB also shows records of Coulter's goldfields within the vicinity of Line Z.



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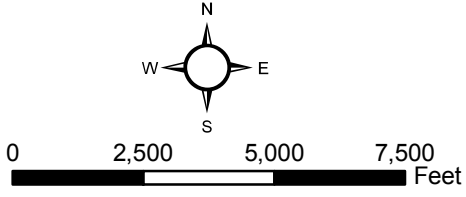


Figure 3.4-4
Survey Area Map

Implementation of the proposed project would result in direct impacts to two special-status plant species not covered by the MSHCP, but listed by the California Native Plant Society as list 1B.1, Chaparral sand-verbena and South coast saltscale, 1B.3. Plants in List 1B are rare, threatened, or endangered in California or elsewhere. Those with the 0.1 threat-code extension, such as Chaparral sand-verbena, are seriously endangered in California. Plants with the 0.3 extension are not very endangered in California. Due to the disturbed nature of the pipelines and alignment, and the limited area of linear construction impact, the proposed project is not anticipated to result in a significant loss of habitat for Chaparral sand-verbena or South coast saltscale. To further identify the potential direct impacts to these species (number of plants and/or area impacted), focused surveys are required for these species during their flowering season and prior to construction. If these plants occur within the construction footprint, impacts to these species may be considered significant. However, with implementation of **MM Bio 7**, impacts to special status plant species are considered **less than significant**.

Approximately half of the Project area is located within the Narrow Endemic Plant Species Survey Area (NEPSSA) 3 (see **Figure 3.4-4**). However, no narrow endemic plant species were observed within the Project area during the surveys. The majority of the narrow endemic plant species within survey area 3 have a low potential for occurrence within the Project area. Neither Munz's onion (*Allium munzii*) nor many-stemmed dudleya (*Dudleya multicaulis*) are expected to occur within the Project area at all due to lack of suitable habitat.

Therefore, the proposed Project is anticipated to result in direct impacts to smooth tarplant and Coulter's goldfields. The proposed Project is not anticipated to result in direct impacts to Munz's onion or many-stemmed dudleya. However, project-specific surveys would be required during the appropriate time of the year to determine the presence/absence of all Narrow Endemic Plants and Criteria Area Plants within the construction footprint prior to installation of facilities. Implementation of **MM Bio 6**, which outlines compliance with Section 6 of the MSHCP, is required to reduce potential impacts to sensitive plant species to less than significant levels.

Currently within the Project area, stormwater from low-flow events ponds within low areas and agricultural and roadside ditches or is conveyed via sheet flows or agricultural and roadside ditches. The general drainage pattern within the Project area is in a northwest direction, towards the San Jacinto River, which is the natural low point in the valley. Regionally, the MDP facilities follow the existing drainage pattern of the Project area.

Sensitive plant species identified in the SJV-MDP Project area are located within the 100-year floodplain of the San Jacinto River. The proposed Project will not alter the velocity, volume, or seasonal flow of the San Jacinto River 100-year floodplain. Thereby, the proposed Project will not alter the historic floodplain of the river and habitat for associated species. Although development within the SJV-MDP Project area would result in changes to the existing local hydrology, local hydrology will not be significantly impacted by construction of the MDP facilities alone. Areas that currently pond or receive sheet flow, would continue to do so during small storm events at the local level. It would be during the larger storm events that stormwater would be collected and conveyed through the MDP facilities. Vertical hydrology (rainfall) is predominantly responsible for the maintenance of vernal pools, and existing plant populations in

the area. Any existing vernal pools and associated sensitive species would continue to receive local runoff and rainfall. Therefore, the proposed Project is not expected to have a significant indirect impact on sensitive plant species in the SJV-MDP Project area or downstream in the San Jacinto River floodplain. Refer to Section 3.7 of this document for a more detailed discussion of potential impacts to hydrology.

3.4.6.2 Special-Status Wildlife Species

Despite the fact that the Project area is located in a predominately agricultural and disturbed environment, special-status native species, primarily birds, may occur in less than optimal and/or disturbed conditions, and may forage over agricultural habitats present in the Project area. The proposed Project would impact disturbed habitats potentially suitable for several species of raptors (e.g., white-tailed kite, northern harrier, Cooper’s hawk, golden eagle, and burrowing owl). Because most potentially-occurring raptor species are very widespread and roam over large areas of foraging territory, these losses would amount to a relatively small, incremental reduction of seasonal foraging habitat and occasional use areas. Impacts to disturbed foraging habitats would not constitute significant adverse impacts to any of the affected species, locally or regionally.

The SJV-MDP Project area contains trees, shrubs, ground cover, and structures that provide suitable habitat for nesting migratory birds, including raptors as discussed in **Table 3.4-C**. The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 C.F.R. Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 C.F.R.21). In addition, Sections 3505, 3503.5, and 3800 of the California Department of Fish and Game Code, prohibit the take, possession, or destruction of birds, their nests or eggs. The MSHCP does not allow for the take of active nests. If any vegetation or structures are to be removed during the nesting season (February 1 to August 31), facility-specific nesting bird surveys shall be conducted first to determine the presence/absence of active nests. If active nests are identified, appropriate avoidance buffers should be established in the nesting activity has completed, and fledglings have left the nest and are no longer dependent on the parents (see **MM Bio 1**). Implementation of Mitigation Measure **MM Bio 1** is required to reduce potential impacts to sensitive and protected bird species to less than significant levels.

Several special-status wildlife species are common throughout the region and were determined to have a moderate to high potential to occur (**Table 3.4-C**, above). Many of these species are considered to be too widespread and common to warrant listing as threatened or endangered by the U.S. Fish and Wildlife Service (FWS) or CDFG. Potential impacts to these species (e.g., loggerhead shrike, California horned lark, San Diego black-tailed jackrabbit, and prairie falcon) would include a small, temporary loss of breeding and/or seasonal foraging habitat locally, neither of which is considered significant. Individuals present within the Project area would be displaced by construction activities. Following construction, many species may continue to forage within the proposed earthen channels and basins. Given the relative abundance of these species in other areas locally, the temporary loss of highly disturbed habitats and an undetermined, but expected low number of individuals displaced, would not constitute a

significant adverse impact to these species on a local or regional basis or to the species or their overall range. Compliance with the MSHCP will reduce impacts to a less than significant level.

Portions of the Project area may provide suitable nesting habitat for burrowing owls. Focused surveys for burrowing owl were conducted on July 31, and August 7, 8, 11, 12, 20, 22, and August 26, 2008. No burrowing owls were identified within the facility alignments or basin locations. Though no burrowing owls were detected during the focused surveys, much of the Project area has a moderate to high probability to support owls, whether breeding pairs, resident individuals, or transient individuals. Future habitat assessments and focused surveys (if suitable habitat/burrows are present) shall be required for SJV-MDP facilities located within the MSHCP burrowing owl survey area. Construction activities could adversely impact burrowing owls if active nests are located near the proposed facilities at the time of construction. Construction noise and activity may disrupt normal breeding and nesting patterns or activities of these species. **Mitigation measures are required to reduce potential impacts from the Project construction to less than significant levels (see MM Bio 2).**

San Bernardino kangaroo rat (SBKR) (*Dipodomys merriami parvus*) was determined to have a low potential to occur within the Project area. Los Angeles pocket mouse (LAPM) (*Perognathus longimembris brevinasus*) was also determined to have a low potential to occur within the Project area.

The extreme northern end of Line K terminates at the edge of the mammal survey area for LAPM and SBKR; however, the rest of the facility alignments are located outside of the mammal survey areas.

With implementation of mitigation measure **MM Bio 8**, survey and conservation requirements pursuant to Section 6.3.2 of the MSHCP, potential impacts from the proposed Project are considered less than significant.

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

Approximately 6.38 acres of riparian habitat were mapped within the Project alignments (see **Figure 3.4-B**), and contained native riparian vegetation including willow (*Salix* spp.), mule fat (*Baccharis salicifolia*), and Fremont's cottonwood (*Populus fremontii*). Much of the riparian vegetation occurs in scattered isolated patches, though at least one of the surveyed alignments terminates at the edge of extensive riparian habitat associated with the San Jacinto River. The remaining majority of the SJV-MDP alignments extend through disturbed areas supporting a predominance of non-native and native ruderal vegetation, including non-native grasses, though these areas are often interspersed with remnants of alkali playa vegetation. Some of the remnant alkali playa areas exhibited evidence of seasonal ponding, though at the time of surveys there was not enough vegetation to adequately evaluate the features as vernal pools.

The riparian areas that were mapped ranged from roadside/agricultural ditches, to ponds and basins, but also included the edge of extensive riparian habitat associated with the San Jacinto River. Some of the mapped areas qualify as MSHCP Riparian Areas, though others would likely be excluded due to their artificial nature. Facility-specific mapping would be required to determine which areas may be subject to MSHCP requirements, and which may not (see **MM Bio 4 and 5**).

Vertical hydrology (rainfall) is predominantly responsible for the maintenance of vernal pools, and existing plant populations in the area. Any existing vernal pools and associated sensitive species would continue to receive local runoff and rainfall. If suitable habitat for species listed in Section 6.1.2 of the MSHCP (least Bell’s vireo, southwestern willow flycatcher, western yellow-billed cuckoo, Riverside fairy shrimp, Santa Rosa Plateau fairy shrimp, and vernal pool fairy shrimp) occurs within the proposed Project area and Project design does not incorporate avoidance of the suitable habitat, avoidance and minimization measures shall be implemented in accordance with the MSHCP species-specific objectives for the species (see **MM Bio 4 and 5**).

The Project will not result in any de-watering of any potential vernal or riparian areas because it will not alter the velocity, volume, or seasonal flow of the San Jacinto River 100-year floodplain. Although development within the SJV-MDP Project area would result in changes to the existing local hydrology, local hydrology will not be significantly impacted by construction of the MDP facilities alone. Areas that currently pond or receive sheet flow would continue to do so during small storm events at the local level. It would be during the larger storm events that stormwater would be collected and conveyed through the MDP facilities.

The biologists mapped “riparian” vegetation throughout the MDP study area, regardless of whether it qualified as MSHCP riparian vegetation or should be excluded from that designation (e.g., artificial creation). It was determined from the general biological assessment conducted in August 2008 that riparian habitat in the Project area is mostly associated with the San Jacinto River, occurring along Lines 3, 4, 5, 6, E, H, J, and Z. Additionally, RCFCWCD is in the design stage for the San Jacinto River Levee Stage 4 Project, which once completed, will significantly alter the existing 100-year flood plain along the northern boundary of the Project area. Hydrological and biological impacts of the San Jacinto Levee Project are not part of this Project, and will be addressed in the San Jacinto River Levee DEIR. The SJ-MDP will ultimately connect to the Levee Project via parallel channels constructed as part of the Levee Project, and will not disturb any biologically sensitive areas within the vicinity of the San Jacinto River area. Compliance with mitigation measures **MM Bio 4 and 5**, and Section 6.1.2 of the MSHCP reduces potential impacts to riparian habitats/vernal pools, and associated species from Project implementation to less than significant levels.

Riparian habitats located in the Project area are associated with drainage features that are potentially jurisdictional. See the Jurisdictional Resources section below for a more detailed discussion of potential impacts to these jurisdictional resources in the Project area.

Threshold: *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.*

In August 2008, Glenn Lukos Associates, Inc., conducted a preliminary general assessment for waters subject to the jurisdictions of: (i) the U.S. ACOE pursuant to Section 404 of the Clean Water Act (CWA); (ii) the Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of CWA or pursuant to the California Porter-Cologne Act; and/or (iii) CDFG pursuant to Section 1602 of the California Fish and Game code. Features with the potential for jurisdiction were mapped (see **Figure 3.4-3**), including agricultural ditches and other roadside ditches, basins, etc., but a comprehensive, wetland/waters delineation was not conducted. Facility-specific jurisdictional delineations will need to be conducted to determine whether features would be subject to the jurisdictions of the ACOE, RWQCB, and CDFG (see **MM Bio 3**).

The Project area contains roadside ditches and other ditches, which if later are shown to be historic diversions of natural waters, would be potential jurisdictional waters. However, the majority (if not all) of these ditches would be considered as non-RPWs and so these features will need to be evaluated in facility-specific jurisdictional delineations to determine if they exhibit a significant nexus to TNWs, and therefore jurisdictional themselves. Ditches that are shown to have been wholly excavated in uplands would not be subject to the jurisdiction of the ACOE.

Areas supporting hydrophytic vegetation (such as riparian areas identified in **Figure 3.4-2**) would need to be evaluated at a project-specific level to determine whether they satisfy wetland criteria. Any “isolated” wetlands will need to be evaluated by the ACOE and the Environmental Protection Agency (EPA) following their joint regulatory guidance, in order to confirm whether any of the “isolated” wetlands would be jurisdictional.

With implementation of MM Bio 3, **potential impacts to federally-protected wetlands are reduced to less than significant levels.**

Regional Water Quality Control Board Jurisdiction

Many of the features within the Project area may not be subject to ACOE jurisdiction as a water of the United States, but that may be subject to the waste discharge requirements (WDRs) of the RWQCB as waters of the State. This may include isolated basins and seasonal ponded features that support aquatic resources such as fairy shrimp, including non-listed species such as the versatile fairy shrimp (*Branchinecta lindahli*).

California Department of Fish and Game Jurisdiction

The Project area contains features, including drainage ditches that would be subject to CDFG jurisdiction. Project-specific jurisdictional delineations will be required to determine the extent of CDFG jurisdiction. Impacts to CDFG jurisdiction will require a Streambed Alteration Agreement.

Threshold: *The proposed project would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan.*

The MSHCP establishes Criteria Area boundaries in order to facilitate the process by which properties are evaluated for inclusion in the MSHCP Conservation Area. The Criteria Area is an area significantly larger than what may be needed for inclusion in the MSHCP Conservation Area. Proposed projects within the Criteria Area are evaluated using MSHCP Conservation Criteria. The Criteria Area is an analytical tool, which assists in determining which properties require conservation under the MSHCP.

The Project area occurs within the San Jacinto Valley Area Plan of the overall MSHCP planning area. Portions of the Project occur within Subunit 1 (Gilman Springs/Southern Badlands), Subunit 2 (Lakeview Mountains East), and Subunit 4 (Hemet Vernal Pool Areas – East), though the majority of the proposed facilities do not occur within a conservation subunit (see **Figure 3.4-5, MSHCP Criteria Cells and Burrowing Owl Survey Area**). The portion of the Project area within Subunit 1 coincides with the extreme southern end of Cell Groups L and M, as well as portions of Cells 2461, 2462, 2568, 2569, and 2674. The portion of the Project area within Subunit 2 coincides with the extreme eastern portion of Cell Group A'. The portion of the Project area within Subunit 4 coincides with Cell Group V and portions of Cells 2775, 2878, and 3291.

The proposed Project is located within a geographic area covered by the MSHCP. As portions of the Project are located within the Criteria Area of the MSHCP, the JPR process will be conducted by the Western Riverside County Regional Conservation Authority (RCA) for those MDP facilities located within an MSHCP Criteria Area, to ensure Project compliance with the MSHCP for facilities located in cells, prior to construction. Those cells that will be considered in the JPR process include Cells 2666, 2774, 2775, 2878, 2363, 2364, 2461, 2462, 2568, 2569, 2674, 2893, 2981, and 3291. Conservation within Cells 2666 and 2774 will range from 70 to 80 percent of Cell Group V, focusing on the northern portion of Cell Group V; the Project proposes alignments throughout Cells 2666 and 2774. Conservation within Cell 2775 ranges from 30 to 40 percent of the Cell, focusing on the southern portion of the Cell; the Project proposes alignments along the western and eastern portions of the Cell. Conservation within Cell 2878 will range from 10 to 20 percent and focuses on the northern portion of the Cell; the Project proposes alignments along the northeastern portion of the Cell. Cell 2363 is within Cell Group L, conservation will focus on the northern portion of Cell Group L; the Project proposes alignments along the southern portion of the Cell. Cell 2364 is within Cell Group M, conservation within Cell Group M will range from 35 to 45 percent and focus on the northern portion of the Cell Group; the Project proposes alignments along the southwestern portion of the Cell. Conservation within Cell 2461 ranges from 5 to 15 percent and focuses in the northeastern portion of the Cell; the Project proposes alignments along the southwestern portion of the Cell. Conservation within Cell 2462 ranges from 15 to 25 percent of the Cell and focuses on the Central portion of the Cell; the Project proposes alignments along the southern portion of the Cell. Conservation within Cell 2568 will range from 35 to 45 percent of the Cell, focusing on the northern portion of the Cell; the Project proposes alignments along the southeastern portion of the Cell. Conservation within

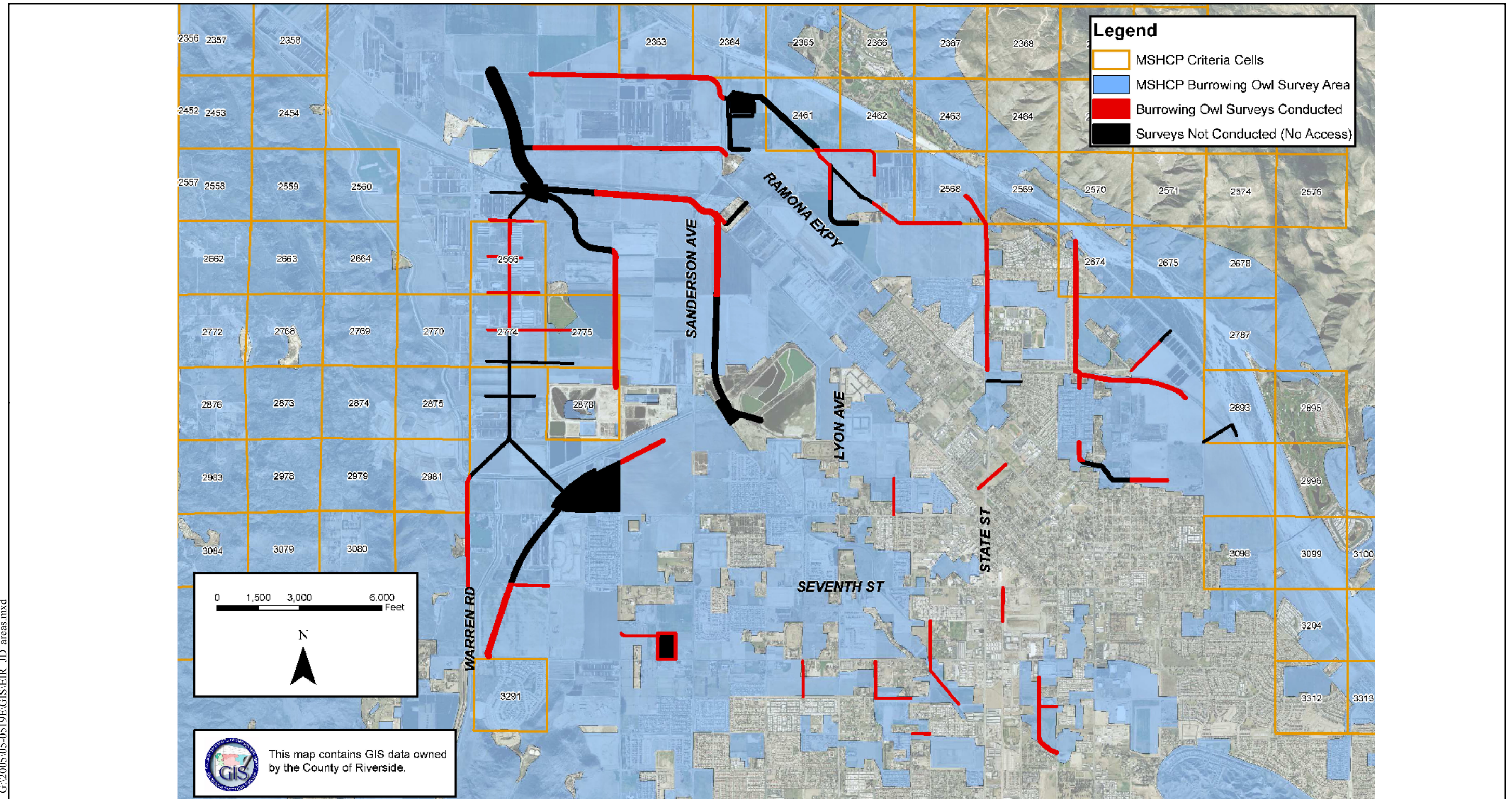


Figure 3.4-5
MSHCP Criteria Cells and Burrowing Owl Survey Area

Cell 2569 will range from 35 to 45 percent of the Cell, focusing on the central and eastern portions of the Cell; the Project proposes alignments adjacent to the southwestern edge of the Cell. Conservation within Cell 2674 will range from 40 to 50 percent of the Cell, focusing on the northern portion of the Cell; the Project proposes alignments along the western portion of the Cell. Conservation within Cell 2893 will contribute to assembly of Proposed Core 5. Cell 2981 is within Cell Group A', conservation within Cell Group A' will range from 65 to 75 percent and focus on the western portion of the Cell Group; the Project proposes alignments along the southwestern edge of the Cell. Conservation within Cell 2462 ranges from 15 to 25 percent of the Cell and focuses on the Central portion of the Cell; the Project proposes alignments along the southern edge of the Cell. Conservation within Cell 3291 will be approximately 5 percent, focusing on the western portion of the Cell; the Project proposes alignments adjacent to the northern portion of the Cell.

In accordance with the MSHCP, the proposed Project was also reviewed for consistency with the MSHCP Section 6.1.2 (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pool), Section 6.1.3 (Protection of Narrow Endemic Plant Species), Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface) and Section 6.3.2 (Additional Survey Needs and Procedures). The proposed Project's consistency with these MSHCP sections is discussed below.

Consistency with MSHCP Section 3.2.1 Public/Quasi-Public (PQP) Lands

Section 3.2.1 of the MSHCP states that, "in the event that a Permittee elects to use property currently depicted as PQP Lands on the MSHCP Plan map (Figure 3-1 of MSHCP) in a way that alters the land use such that it would not contribute to Reserve Assembly, the Permittee shall locate and acquire or otherwise encumber replacement acreage at a minimum ratio of 1:1 replacement taking into account direct and indirect effects of PQP Lands in one location with PQP Lands in another location. The Permittee must make findings that the replacement acreage is biologically equivalent or superior to the existing property as set forth in Section 6.5 of the MSHCP, Volume I." The Project is programmatic at this time, and the locations of the drainage facilities are not finalized. Lines H, K, E-1, and E-4 are within the vicinity of PQP lands and could potentially impact PQP lands. If this occurs, the Project proponent will abide by the aforementioned requirements of Section 3.2.1 of the MSHCP. However, it should be known that the RCA is currently going through PQP Reconciliation. Parcels currently owned by Flood Control will no longer be PQP after the Reconciliation.

Consistency with MSHCP Section 6.1.2

Riparian/Riverine areas are 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. Vernal pools are seasonal wetlands that occur in depression areas that have wetland indicators of all three parameters (soil, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portions of the growing season.

Approximately 6.38 acres of riparian areas were mapped within the SJV-MDP facility alignments, though more, smaller areas may exist within areas that could not be accessed. The riparian areas that were mapped, ranged from roadside/agricultural ditches, to ponds and basins, but also included the edge of extensive riparian habitat associated with the San Jacinto River. Some of the mapped areas qualify as MSHCP Riparian Areas, though others would likely be excluded due to their artificial nature. Project-specific mapping would be required to determine which areas may be subject to MSHCP requirements, and which may not.

Numerous roadside ditches were noted throughout the Project area, though not all of these could be mapped and evaluated due to the restricted access. The majority (if not all) of the ditches would be excluded as MSHCP “riverine areas” due to their artificial nature.

Section 6.1.2 of the MSHCP requires habitat assessments (and focused surveys where suitable habitat is present) for riparian bird species with MSHCP survey requirements, including the least Bell’s vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii traillii*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*). All three species are migratory birds that would have some potential to occur within the MDP Project area as transient individuals during migration. However, the yellow-billed cuckoo would not be expected to breed within the Project area due to a lack of suitable habitat. The southwestern willow flycatcher has the potential to breed within the San Jacinto River, but would not be expected to breed within any of the Project areas. The least Bell’s vireo occupies portions of the nearby San Jacinto River, and may have a moderate potential to breed within scattered isolated riparian vegetation within the Project area, though the opportunity is extremely limited. Project-specific focused surveys will need to be conducted for the vireo within potentially suitable to be impacted by a project.

The majority of lands within the SJV-MDP are not likely to support vernal pools given their disturbed nature. However, vernal pools/playa areas are known to exist within the Project area, including within the area designated as Proposed Noncontiguous Habitat Block 6 by the MSHCP. The proposed Habitat Block includes an existing chicken ranch and other agricultural lands (see **Figure 3.4-6, Vegetation**) where playa areas are interspersed amongst these land uses. Although during the survey, the biologist did note some scattered playa areas surrounding the chicken ranch property and adjacent lands, these areas were not able to be adequately evaluated for vernal pools/fairy shrimp due to seasonal constraints.

The MSHCP states that the proposed Habitat Block provides preservation value for several special-status vernal pool plant species, including the federally-listed California Orcutt grass, thread-leaved brodiaea, and spreading navarretia; as well as the vernal pool fairy shrimp (*Branchinecta lynchi*). However, it is not clear in the existing records whether one or more of these species have actually been detected within the Project area. Based on a review of existing information, it appears that the MSHCP at least regards these areas as having conservation value for the sensitive vernal pool species. Future facility-specific focused surveys will be required during the appropriate season to confirm the presence/absence of the relevant vernal pool plants and listed fairy shrimp (see **MM Bio 5 and 6**). If avoidance is infeasible for any riparian/riverine areas or vernal pools located within the Project area, then a Determination of Biologically Equivalent or Superior Preservation (DBESP) must be approved by the wildlife agencies taking