

## 3.0 Project Description

This section provides all of the information required of an EIR Project Description by CEQA Guidelines Section 15124, including a description of the Project's precise location and boundaries; a statement of the Project's objectives; a description of the Project's technical, economic, and environmental characteristics; and a description of the intended uses of this EIR, including a list of the governmental agencies that are expected to use this EIR in their decision-making processes; a list of the permits and approvals that are required to implement the Project.

### 3.1 Project Location

The project site is an approximately 27-acre area located east of the Interstate-15 (I-15) freeway, north of Indian Truck Trail and Corona Lake, and west of Temescal Canyon Road (Refer to Figure 3.0-1, Regional Map, Figure 3.0-2, Aerial Map, and Figure 3.0-3, USGS Topographic Map). The project site is located within the Elsinore Area Plan of the Riverside County General Plan and located adjacent to/southeast of the Temescal Canyon Area Plan (Figure 3.0-4, Riverside County Area Plans).

### 3.2 Project Characteristics

The proposed project is located on a narrow strip of land between I-15 and Temescal Canyon Road. Areas to the west of I-15 consist of residential, commercial, and industrial land uses. Corona Lake and associated recreational land uses are located to the southeast. Areas to the east of the project site consist of vacant, undeveloped land extending up to Estelle Mountain. Immediately east of the project site and east of Temescal Canyon Road is a hill that separates the project site from the Temescal Canyon Wash. The wash flows around the eastern side of the hill in a northerly direction adjacent to Temescal Canyon Road.

Surface elevations range from approximately 1,078 to 1,215 feet above mean sea level (AMSL) with areas of greater topographic relief located along the western boundary of the project site. Based on the USDA Soil Survey, the project site is underlain by the following soil units: Altamont Clay (15 to 25 Percent Slopes Eroded); Cortina Gravelly Coarse Sandy Loam (2 to 8 Percent Slopes); Gorgonio Loamy Sand (0 to 8 Percent Slopes); Ramona Sandy Loam (0 to 5 Percent Slopes, Eroded); Ramona Sandy Loam (5 to 8 Percent Slopes, Severely Eroded); Ramona Sandy Loam (8 to 15 Percent Slopes, Eroded); and Terrace Escarpments.

Nine (9) plant communities were observed within the boundaries of the project site during the habitat assessment: annual grassland; Riversidean sage scrub (RSS); southern cottonwood willow riparian forest; coast live oak riparian forest; mulefat scrub; wetland; eucalyptus woodland; disturbed; and developed. The project site consists of vacant land that varies in levels of disturbance. The southern two thirds of the project site primarily consist of annual grasslands that have historically been subject to grading activities and human disturbance with isolated patches of Riversidean Sage Scrub on terrace slopes.

Historically, most of the northern half of the project site was used as a storage yard, based on historic aerial photographs. Currently, this area is no longer utilized as a storage area, but the vegetation has been heavily disturbed. Additionally, on top of the recessed area along the northern boundary is an area that has been graded and leveled with little to no vegetation. On

the northwestern corner of the project site is an ephemeral drainage feature that extends from the western boundary of the project site via an earthen channel. This drainage feature then becomes riprap lined as it generally flows in a northern direction into Temescal Canyon Wash.

The project site is in an area designated with the Foundation Component of Community Development and Land Use Designation of Light Industrial. Adjacent and surrounding areas are designated with Foundation Components of Community Development to the north and east and further west, Rural to the east, and Open Space to the north and west. Adjacent and surrounding areas have Land Use Designations of Light Industrial and Mixed-Use Area to the east, Rural Mountainous to the east, and Conservation to the north and west. (Refer to Figure 3.0-5, General Plan Land Use) The existing zoning of the site is Manufacturing – Service Commercial (M-SC). Adjacent and surrounding zoning includes Manufacturing Service – Commercial (M-SC) to the north, Specific Plan (SP 327) to the east and north, Mixed Use Area (MUA) to the east, and Specific Plan (SP 256) to the west. (Refer to Figure 3.0-6, Zoning)

### 3.2.1 Proposed Project

The proposed Project is a commercial development that will include a gas station, restaurants, retail, office, and a supermarket, Figure 3.0-7, Site Plan. The overall project would be developed in two phases; Phase I would include development of approximately 12 acres of the southeast portion of the site and Phase II would include future development of the remaining approximately 15 acres of the northwest portion of the site. Development applications (Plot Plan and Conditional Use Permit) that cover Phase I as listed below are in process to be considered concurrently with the environmental document. Subsequent applications for Phase II would be submitted later and will require subsequent environmental review.

Plot Plan No. 26290 proposes to develop 6 buildings totaling approximately 61,000 square feet for fast food, retail, office, and gas station use as outlined in Table 1 below.

Conditional Use Permit No. 3712 proposes to permit the sale of beer and wine for off-site consumption associated with the convenience store (Building 3) and gas station use proposed.

General Plan Amendment No. 1146 proposes to change the Land Use designation of the entire project site from Community Development: Light Industrial (CD: LI) to Community Development: Commercial Retail (CD:CR).

Change of Zone No. 7859 proposes to change the zoning of the entire project site from Manufacturing – Service Commercial (M-SC) to Scenic Highway Commercial (C-P-S).

Plot Plan No. 26290 covering Phase I of the planned development proposes the construction of 6 buildings totaling approximately 61,000 square feet for fast food, retail, office, and gas station use as outlined in **Table 3.0-A** below. Buildings 1 and 2 are single story 3,400 square foot fast food restaurants with drive-thrus. Building 3 is a single-story 3,800 square foot gas station with 12 fueling stations, car wash, and a convenience store. Building 4 is a single story 4,500 square foot restaurant. Building 5 is a two-story 39,900 square foot retail and office building. Building 6 is a single story 6,000 square foot restaurant.

**Table 3.0-A: Phase I/ Plot Plan No. 26290 Buildings**

Building Number	Proposed Use	Square Footage (square feet)	Height (in feet)
1	Fast Food Restaurant	3,400	27
2	Fast Food Restaurant	3,400	27
3	Gas Station with Convenient Store	3,800	27
4	Restaurant	4,500	39
5	Retail (1 <sup>st</sup> floor) and Office (2 <sup>nd</sup> floor)	39,900	47
6	Restaurant	6,000	37
<b>Total</b>		<b>61,000</b>	

The combined maximum square footage in Phase I is 6,800 square feet for fast-food restaurant; 10,500 square feet for restaurant; 3,800 square feet for gas station/convenience store; and 39,900 square feet for retail and office. The final development may have adjustments that result in a reduction of square footage. However, the development will not exceed the total square footages outlined herein as these are used in the technical studies and analysis in this Environmental Assessment and subsequent Environmental Impact Report (EIR).

Three access points to Phase I buildings will be located along Temescal Canyon Road. The first entrance into the Phase I development would be between Building 1 and Building 2. The next entrance would be located between Building 3 and Building 4. The most northerly entrance of Phase I is located north of Building 6 and constitutes the northwest extent of Phase I. The six buildings would be served by a total of approximately 389 parking spaces.

Phase II buildings will follow the same architectural design standards as Phase I buildings. Phase II of the planned development would include the construction of an anticipated total of 9 buildings totaling approximately 133,000 square feet for restaurant, bank, office, retail and supermarket uses as outlined in **Table 3.0-B** below. Building 7 is single story 6,000 square foot restaurant. Buildings 8, 9, and 10 are two-story office buildings each with 14,000 square feet. Building 11 is a single-story 14,000 square foot pharmacy. Building 12 is a single story 21,000 square foot retail building. Building 13 is a single-story 3,500 square foot bank or restaurant building. Building 14 is a single story 3,500 square foot restaurant. Building 15 is a single story 43,000 square foot supermarket.

**Table 3.0-B: Phase II Buildings**

Building Number	Proposed Use	Square Footage
7	Restaurant	6,000
8	Office	14,000
9	Office	14,000
10	Office	14,000
11	Pharmacy	14,000
12	Retail	21,000

13	Bank or Restaurant	3,500
14	Restaurant	3,500
15	Supermarket	43,000
<b>Total</b>		<b>133,000</b>

The maximum square footage in Phase II is 13,000 square feet for restaurant; 42,000 square feet for office; 14,000 square feet for pharmacy; 21,000 square feet for retail; 3,500 square feet for bank; and 43,000 square feet for supermarket. The final development may have adjustments that result in a reduction of square footage. However, the final site plan and plot plan(s) will not exceed the total square footages outlined herein as these are used in the technical studies and analysis in this Environmental Assessment and subsequent Environmental Impact Report (EIR).

One access point to Phase II buildings will be located along Temescal Canyon Road, near the northeast corner of the site and Building 15, the supermarket. The nine buildings will be served by a total of approximately 749 parking spaces.

Additionally, the project applicant proposes to obtain an encroachment permit from Caltrans to do mass grading of Caltrans' right-of-way (ROW) on approximately 3.3 acres between the site's southwest boundary and the I-15 northbound on-ramp, Figure 3.0-8 Off-site Improvements. Mass grading for the entire proposed project site, including the Caltrans ROW of 3.3 acres, would occur during Phase I. A total of approximately 300,000 cubic yards (CY) of material will be cut and filled onsite. No material is anticipated to be exported or imported. Phase II would be mass graded at the same time Phase I is graded. However, construction of Phase II buildings would be sometime after initial mass grading of the entire site and construction of Phase I.

The project will include the construction of offsite water, sewer, and non-potable water pipeline extensions in Temescal Canyon Road to connect to existing lines north up to Terramor Drive (Figure 3.08, Off-site Improvements). The project will include road improvements at Temescal Canyon Road and Indian Truck Trail intersection at a driveway to the project along Temescal Canyon Road. The project will include construction of on-site drainage facilities (storm drain pipelines, swales, and basins) to convey on-site and off-site (upstream) across the site to existing downstream facilities located in Temescal Canyon Road.

Approximately eight (8) existing Southern California Edison (SCE) power poles that are located along Temescal Canyon Road and the project site's frontage will need to be relocated. The power poles will generally remain in the same location within the existing SCE Right-of-Way. The relocation is an adjustment in elevation because the existing elevation (or ground level) where they are located and the proposed elevation after site grading and proposed improvements to the west side of Temescal Canyon Road are different. The elevation adjustments are anticipated to be completed by installing a new pole several feet away from the existing at the new elevation and then transferring the power lines from the previous pole to the new pole at the proper elevation.

### 3.2.2 Land Use Applications

- General Plan Amendment No. 1146 to change the Land Use designation of the entire project site from Community Development: Light Industrial (CD:LI) to Community Development: Commercial Retail (CD:CR).

- Change of Zone No. 7859 to change the zoning of the entire project site from Manufacturing – Service Commercial (M-SC) to Scenic Highway Commercial (C-P-S).
- Conditional Use Permit No. 3712 proposes to permit the sale of beer and wine for off-site consumption associated with the convenience store (Building 3) and gas station use proposed.
- Plot Plan No. 26290 for construction of 6 buildings totaling approximately 61,000 square feet for fast food, retail, office, and a gas station.

### 3.3 Project Objectives

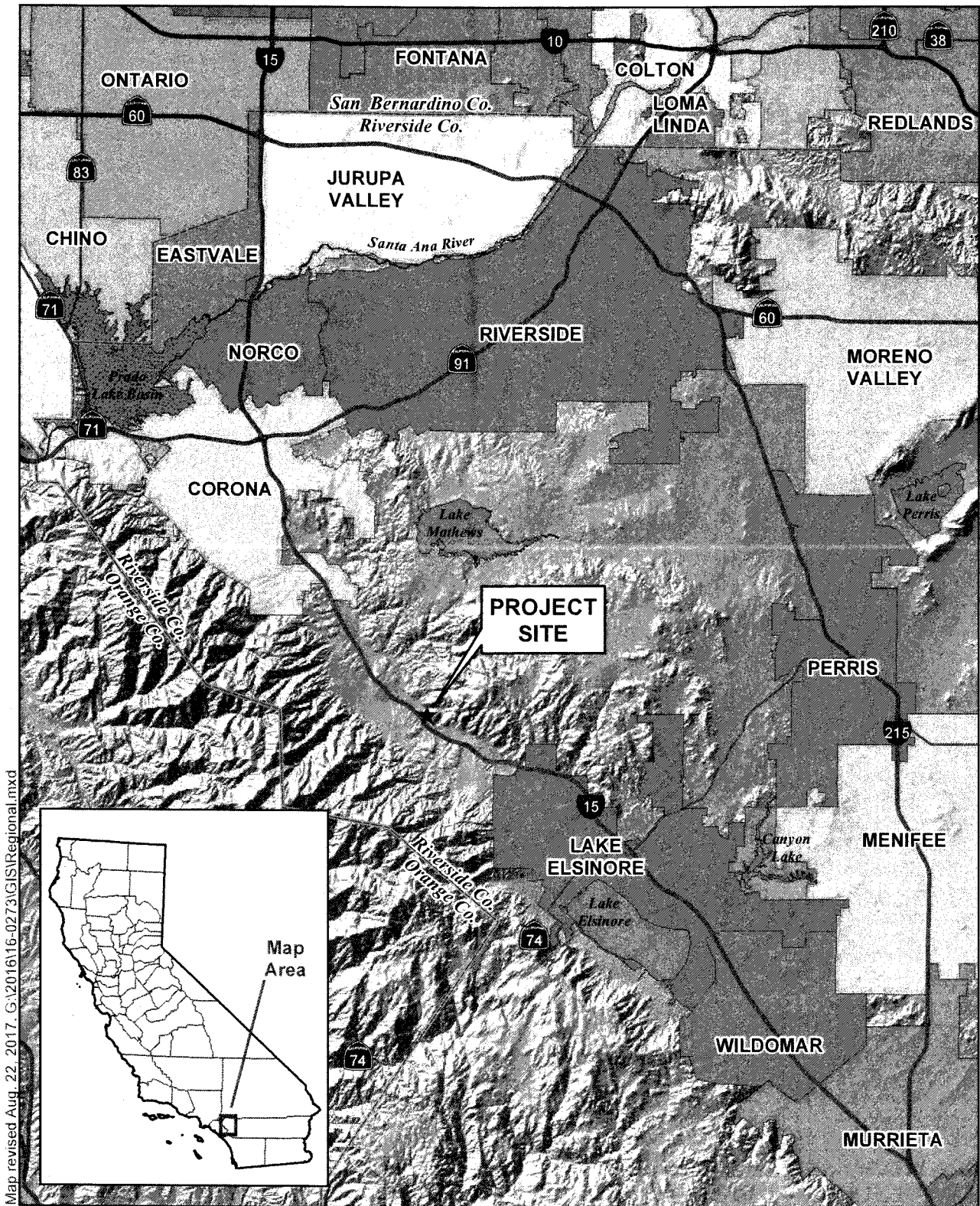
The purpose of the proposed Project and the County's primary objective is to entitle property in the Temescal Valley community for commerce and employment-generating purposes to bring new business and jobs to the area. The objectives of the proposed Project are as follows:

- Provide a mix of commercial uses that utilizes the site's job-creation potential and that will be conveniently located in proximity to Temescal Valley residents, thereby helping to diversify employment opportunities in the vicinity, provides the chance to live and work within their community, and helps improve the relationship and ratio between jobs and housing.
- Develop the site with a variety of uses that serve the local community and will be located close to residential areas to help reduce automobile trips and travel distances, which can help improve air quality and encourage non-automobile trips.
- Provide a highly convenient location for shopping and dining for the local developing community of Terramor, that caters to the 55+ crowd.
- To create a visually attractive development through consistent application of architectural elements and landscape standards that will create a community atmosphere, reinforce the community character of Temescal Valley utilizing specific quality materials and Tuscan theme styles.
- To establish a well-balanced and carefully planned collection of specialized and general retail uses that can take full advantage of the site's visibility and accessibility from I-15 Freeway/ transit corridor.
- To provide daytime and nighttime shopping and dining opportunities in a safe and secure environment.
- To augment the County's economic base by providing a variety of sales tax-generating uses which minimize leakage of sales from Temescal Valley.
- To accommodate the development of a balance of land uses that maintains and enhances the county's fiscal viability, economic diversity, and environmental integrity.

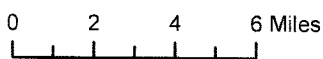
### 3.4 Discretionary Actions and Approvals

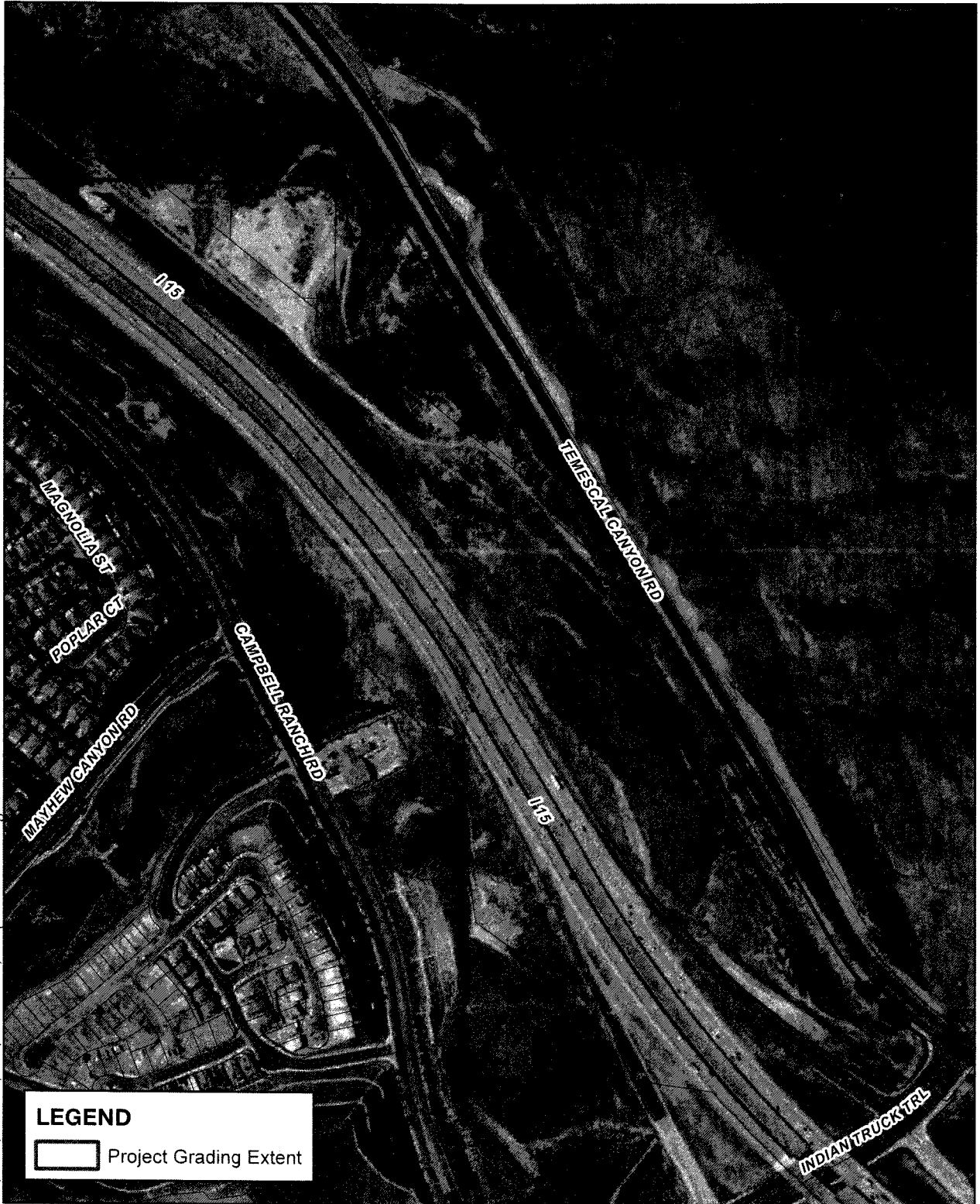
In addition to the Project-related actions under consideration by Riverside County, additional discretionary and/or administrative actions would be necessary to implement the proposed Project. The following is a list of agencies that are expected to use this EIR and their expected actions associated with the Project:

- **Riverside County Planning Commission** – recommend approval, conditions of approval, or denial of GPA No. 1146, CZ No. 7859, PP No. 26290, CUP No. 3712 and recommend that the Board of Supervisors reject or certify this EIR along with appropriate CEQA Findings and Statement of Overriding Considerations.
- **Riverside County Board of Supervisors** – Approve, conditionally approve, or deny GPA No. 1146, CZ No. 7859, PP No. 26290, CUP No. 3712 and reject or certify this EIR along with appropriate CEQA Findings and Statement of Overriding Considerations.
- **Riverside County** – Subsequent Implementing Approvals – approve final maps, parcel mergers or parcel consolidations, as may be necessary, approve conditional or temporary use permits, issue grading permits, issue building permits, approve road improvement plans, issue encroachment permits, accept public right-of-way dedications, approve street vacations.
- **Riverside County Flood Control and Water Conservation District** – approvals for construction of drainage infrastructure.
- **Temescal Valley Water District** – approvals for construction of water, sewer, and non-potable water infrastructure.
- **Santa Ana Regional Water Quality Control Board** – issuance of a Construction Activity General Construction Permit and 401 Water Quality Certification.
- **California Department of Fish and Wildlife** – issuance of a Streambed Alteration Agreement (1600 permit).
- **South Coast Air Quality Management District** – issuance of a Permit to Construct and Permit to Operate for the gas station.



**Figure 3.0-1 – Regional Map**  
Toscana Village






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Sources: Riverside Co. GIS, 2017;  
USDA NAIP, 2016.

**LEGEND**

 Project Grading Extent



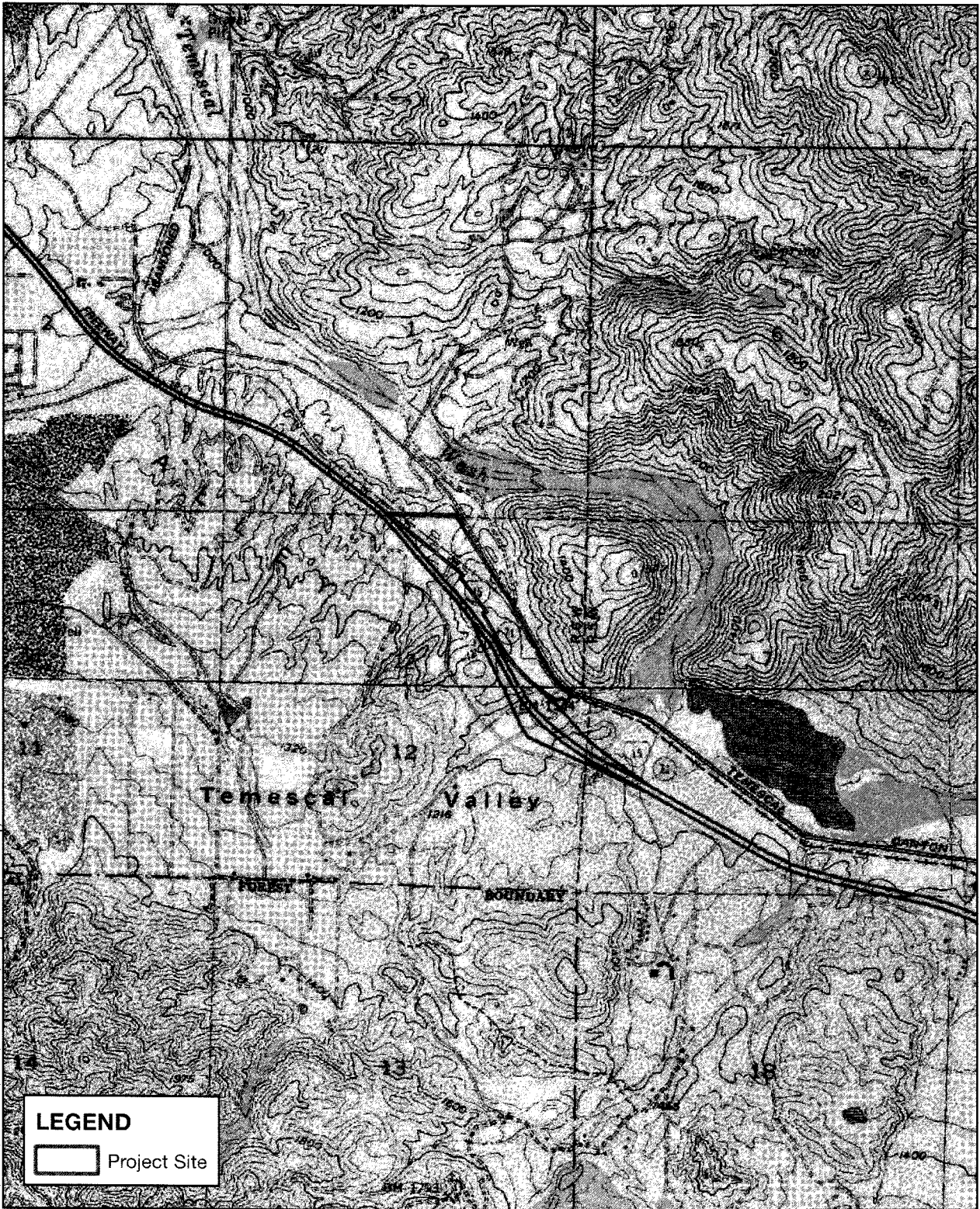
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**Figure 3.0-2 - Aerial Map**

Toscana Village

ALBERT A.  
**WEBB**  
ASSOCIATES





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Sources: USGS 7.5min Quad DRGs:  
LAKE MATHEWS / ALBERHILL

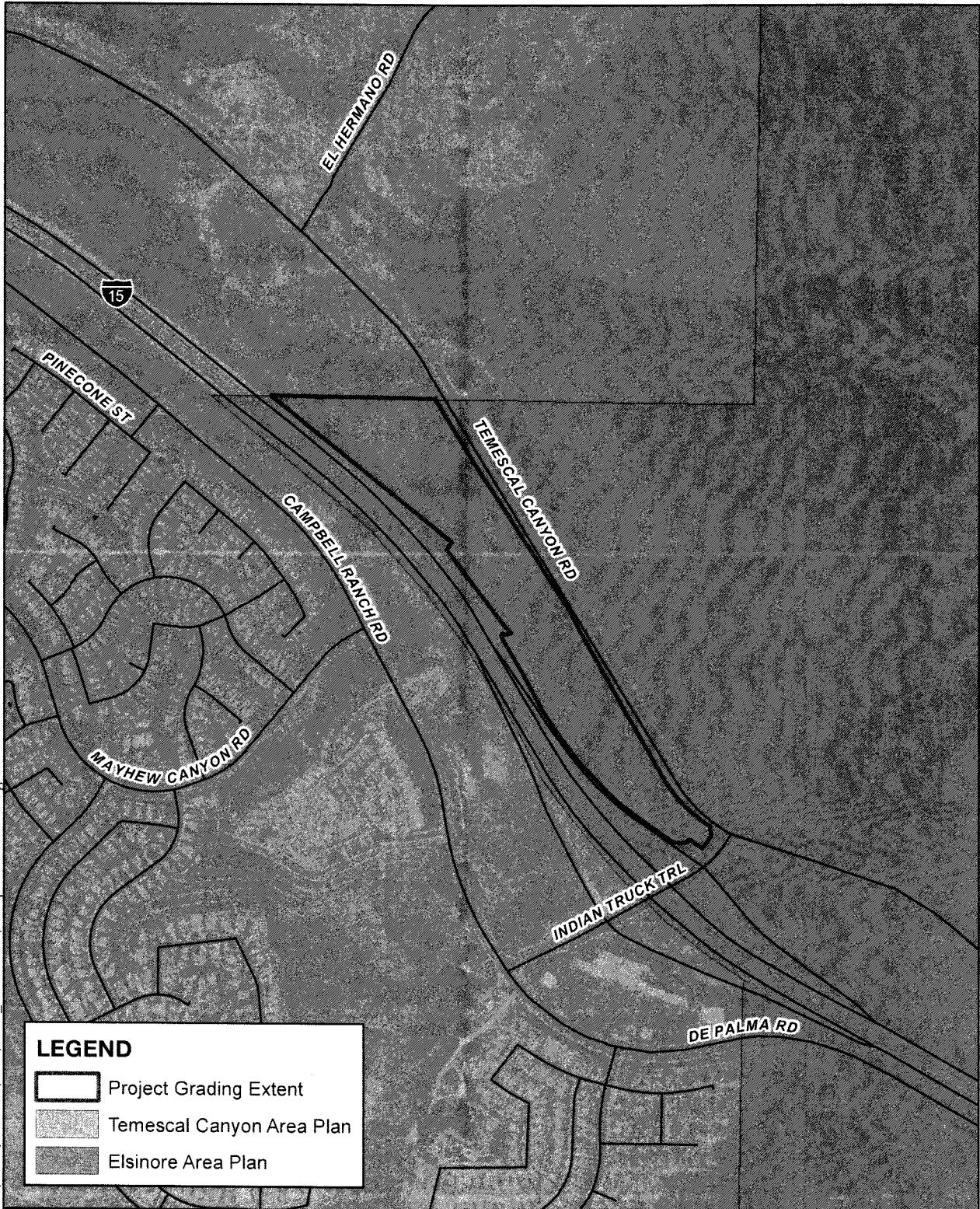
**Figure 3.0-3 - USGS Topographic Map**

Toscana Village



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ASSOCIATES

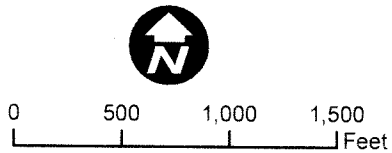


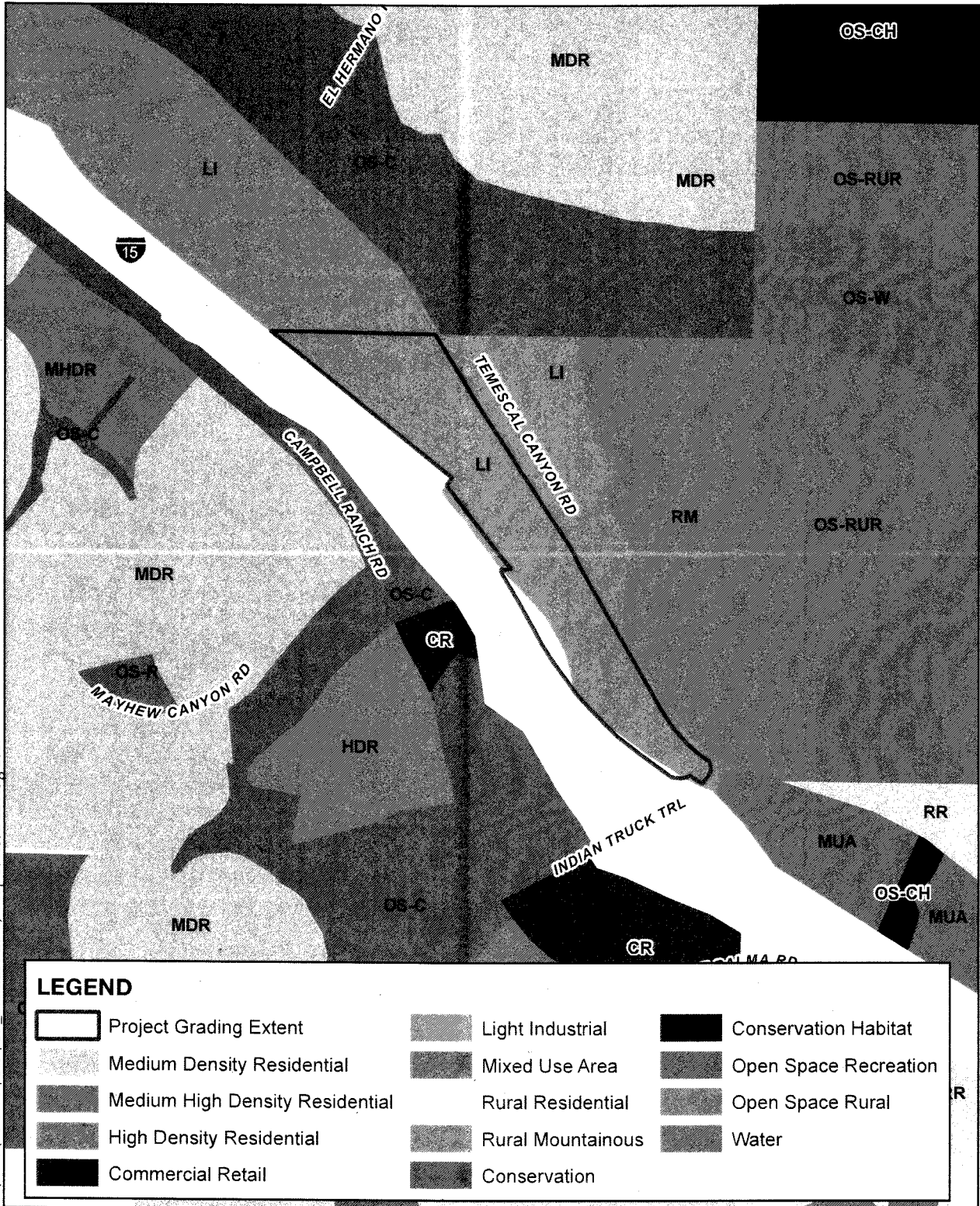
G:\2016\16-0273\GIS\Area\_Plans.mxd; Map revised 22 Aug 2017

Sources: Riverside Co. GIS, 2017;  
USDA NAIP, 2016.

**Figure 3.0-4 - Riverside County Area Plans**

Toscana Village



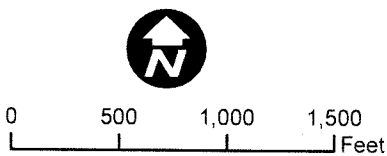


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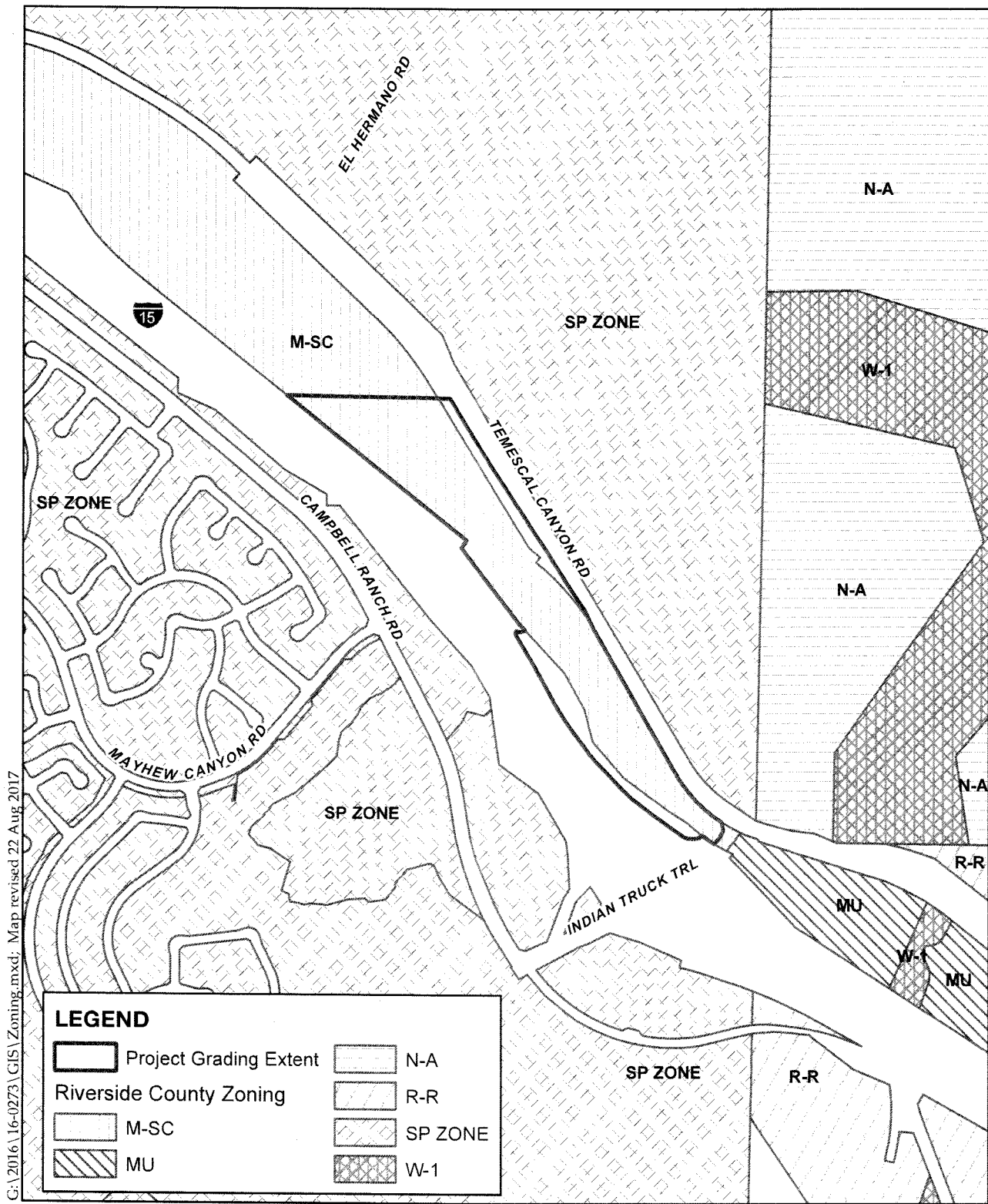
Sources: Riverside Co. GIS, 2017;  
USDA NAIP, 2016.

**Figure 3.0-5 - General Plan Land Use**

Toscana Village



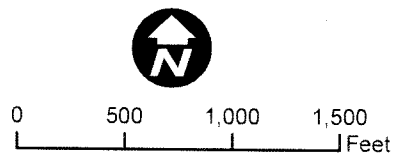
ALBERT A.  
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ASSOCIATES

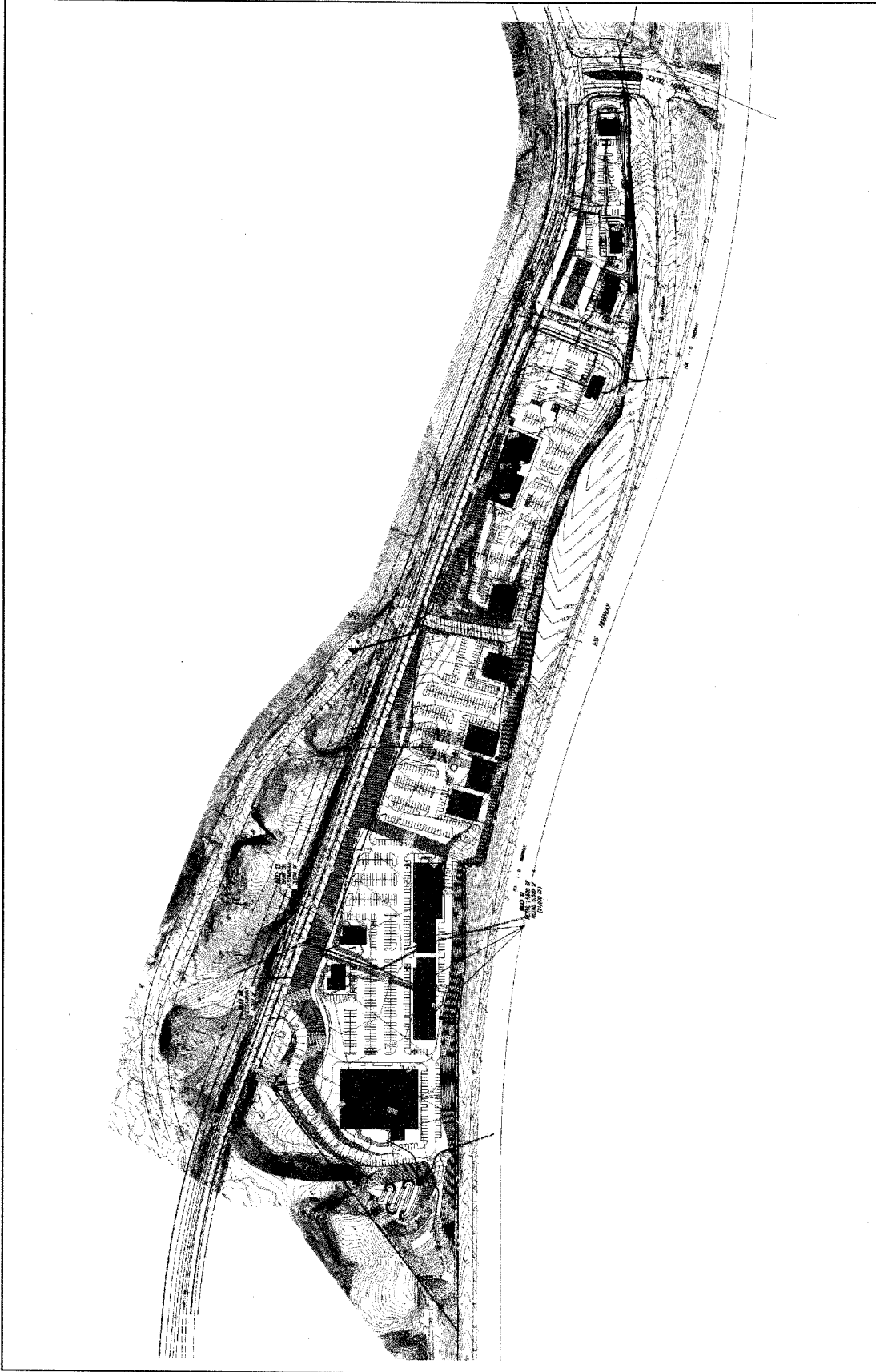


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**Figure 3.0-6 - Zoning**

Toscana Village





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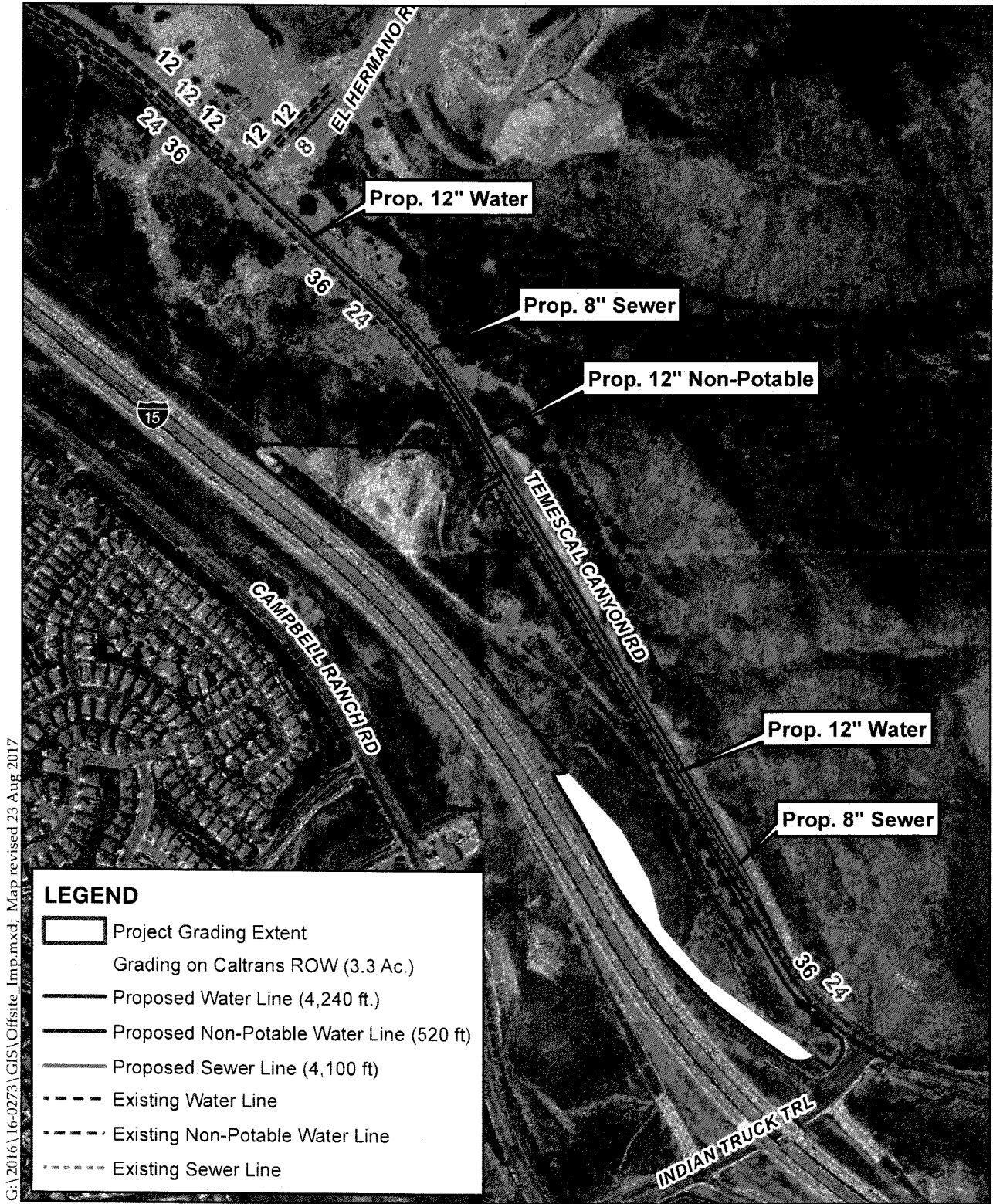
K&A Engineering, April 2017



Not to Scale

**Figure 3.0-7 - Site Plan**  
Toscana Village

ALBERT A.  
**WEBB**  
ASSOCIATES

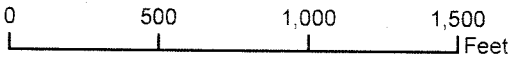


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**LEGEND**

- Project Grading Extent
- Grading on Caltrans ROW (3.3 Ac.)
- Proposed Water Line (4,240 ft.)
- Proposed Non-Potable Water Line (520 ft)
- Proposed Sewer Line (4,100 ft)
- Existing Water Line
- Existing Non-Potable Water Line
- Existing Sewer Line

Sources: Riverside Co. GIS, 2017;  
USDA NAIP, 2016.



**Figure 3.0-8 - Off-site Improvements**

Toscana Village



## 4.0 Environmental Effects Found Not to be Significant

The California environmental Quality Act (CEQA) provides that a DEIR shall focus on all potentially significant effects created by the project onto the environment, discussing the effects with emphasis in proportion to their severity and probability of occurrence. Effects dismissed in an Environmental Assessment Form: Initial Study as insignificant and unlikely to occur need not be discussed further in the DEIR unless information inconsistent with the finding in the Initial Study is subsequently received.

### 4.1 Effects Found not to be Significant During Preparation of the NOP

Section 21100(c) of the Public Resources Code states that an EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore, not discussed in detail in the EIR. Section 15128 of the *CEQA Guidelines* adds, "Such a statement may be contained in an attached copy of an Initial Study." The Environmental Assessment Form: Initial Study that was prepared for the proposed Project is included in Appendix A. Comment letters received in response to the NOP and notes of comments received at the scoping meeting are also contained in Appendix A. The Environmental Assessment Form: Initial Study was prepared to evaluate the Project's potential to impact the environment. The Environmental Assessment Form: Initial Study includes an analysis for the environmental issues and thresholds that the proposed Project was determined to have no impact, a less than significant impact, or less than significant impact with mitigation incorporated. The following environmental topics and thresholds were determined not to be significant and therefore, will not be discussed in the EIR:

#### 4.1.1 Aesthetics

- Have a substantial effect upon a scenic highway corridor within which it is located?
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and unique or landmark features; obstruct any prominent scenic vista or view open to the public; or result in the creation of an aesthetically offensive site open to public view?
- Interfere with the nighttime use of the Mt. Palomar Observatory, as protected through Riverside County Ordinance No. 655?
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?
- Expose residential property to unacceptable light levels?

#### 4.1.2 Agriculture and Forestry Resources

- 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 agricultural use, or with land subject to a Williamson Act contract or within a Riverside County Agricultural Preserve?
- Cause development of non-agricultural uses within 300 feet of agriculturally zoned property (Ordinance No. 625, "Right-to-Farm")?
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 122220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?
- Result in the loss of forest land or conversion of forest land to non-forest use?
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

#### **4.1.3 Cultural Resources**

- Alter or destroy an historic site?
- Cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, Section 15064.5?
- Alter or destroy an archaeological site?
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to California Code of Regulations, Section 15064.5?
- Disturb any human remains, including those interred outside of formal cemeteries?
- Restrict existing religious or sacred uses within the potential impact area?

#### **4.1.4 Paleontological Resources**

- Directly or indirectly destroy a unique paleontological resource, or site, or unique geologic feature?

#### **4.1.5 Geology and Soils**

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death?
- Be subject to rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?



- Be subject to seismic-related ground failure, including liquefaction?
- Be subject to strong seismic ground shaking?
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, collapse, or rockfall hazards?
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in ground subsidence?
- Be subject to geologic hazards, such as seiche, mudflow, or volcanic hazard?
- Change topography or ground surface relief features?
- Create cut or fill slopes greater than 2:1 or higher than 10 feet?
- Result in grading that affects or negates subsurface sewage disposal systems?
- Result in substantial soil erosion or the loss of topsoil?
- Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property?
- Have soils incapable of adequately supporting use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?
- Change deposition, siltation or erosion that may modify the channel of a river or stream or the bed of a lake?
- Result in any increase in water erosion either on- or off-site?
- Be impacted by or result in an increase in wind erosion and blowsand, either on or off site?

#### **4.1.6 Hazards and Hazardous Materials**

- Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
- Impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan?
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?

- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
- Result in an inconsistency with an Airport Master Plan?
- Require review by the Airport Land Use Commission?
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?
- For a project within the vicinity of a private airstrip, or heliport, would the project result in a safety hazard for people residing or working in the project area?
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

#### **4.1.7 Hydrology and Water Quality**

- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?
- Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows?
- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam (Dam Inundation Area)?

#### **4.1.8 Mineral Resources**

- Result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the state?
- Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?
- Be an incompatible land use located adjacent to a state classified or designated area or existing surface mine?
- Expose people or property to hazards from proposed, existing, or abandoned quarries or mines?

#### **4.1.9 Noise**

- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?
- For a project within the vicinity of a railroad track, would the project expose people residing or working in the project area to excessive railroad noise?
- Would the project expose people residing or working in the project area to any excessive noise levels from other sources?

#### **4.1.10 Population and Housing**

- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?
- Create a demand for additional housing, particularly housing affordable to households earning 80% or less of the County's median income?
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?
- Affect a County Redevelopment Project Area?
- Cumulatively exceed official regional or local population projections?
- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

#### **4.1.11 Public Services**

- Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services including the following?
  - Fire Services
  - Sheriff Services
  - Schools

- Libraries
- Health Services

#### **4.1.12 Recreation**

- Would the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?
- Would the Project include the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
- Is the project located within a Community Service Area (CSA) or recreation and park district with a Community Parks and Recreation Plan (Quimby fees)?
- Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered recreational trails, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

#### **4.1.13 Transportation/Traffic**

- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?
- Alter waterborne, rail or air traffic?
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- Cause an effect upon or a need for new or altered maintenance of roads?
- Cause an effect upon circulation during the project's construction?
- Result in inadequate emergency access or access to nearby uses?
- Conflict with adopted policies, plans or programs regarding public transit, bikeways or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?
- Cause an effect upon bike trails?

#### **4.1.14 Utility and Service Systems**

- Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?

- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?
- Require or result in the construction of new wastewater treatment facilities, including septic systems, or expansion of existing facilities, the construction of which would cause significant environmental effects?
- Result in a determination by the wastewater treatment provider that serves or may service the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
- Is the project served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?
- Comply with federal, state, and local statutes and regulations related to solid wastes including the CIWMP (County Integrated Waste Management Plan)?
- Would the project impact the following facilities requiring or resulting in the construction of new facilities or the expansion of existing facilities; the construction of which could cause significant environmental effects?
  - Electricity?
  - Natural Gas?
  - Communications systems?
  - Storm water drainage?
  - Street lighting?
  - Maintenance of public facilities, including roads?
  - Other governmental services?

## **4.2 Effects Found Not to be Significant as Part of the EIR Analysis**

The following environmental topics and thresholds were determined not to be significant as part of the EIR analysis.

### **4.2.1 Air Quality**

- Would the project expose sensitive receptors which are located within one mile of the project site to substantial point source emissions?
- Would the project involve the construction of a sensitive receptor located within one mile of an existing substantial point source emitter?

- Would the project create objectionable odors affecting a substantial number of people?

#### **4.2.2 Biological Resources**

- Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game [Wildlife] or U.S. Fish and Wildlife Service?
- Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

#### **4.2.3 Hydrology and Water Quality**

- Would the project substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site?
- Would the project violate any water quality standards or waste discharge requirements?
- Would the project create or contribute to runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?
- Would the project otherwise substantially degrade water quality?
- Would the project include new or retrofitted stormwater Treatment Control Best Management Practices (BMPs) (e.g., water quality treatment basins, constructed treatment wetlands), the operation of which could result in significant environmental effects (e.g., increased vectors or odors)?
- Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site?
- Would the project change absorption rates or the rate and amount of surface runoff?

**4.2.4 Land Use and Planning**

- Would the project result in a substantial alteration of the present or planned land use of an area?
- Would the project affect land use within a city sphere of influence and/or within adjacent city or county boundaries?
- Would the project be consistent with the site's existing or proposed zoning?
- Would the project be compatible with existing surrounding zoning?
- Would the project be compatible with existing and planned surrounding land uses?
- Would the project be consistent with the land use designations and policies of the Comprehensive General Plan (including those of any applicable Specific Plan) or regional plans?
- Would the project disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?

**4.2.5 Noise**

- Would the Project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
- Would the Project expose persons to, or generation of, excessive groundborne vibration or groundborne noise levels?

**4.2.6 Transportation/Traffic**

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, pedestrian and bicycle paths, and mass transit? (Impacts associated with the I-15 freeway was found significant)

**4.2.7 Tribal Cultural Resources**

- Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native tribe, and that is:
  - Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

- A resource determined by the lead agency, in its discretion and supported by substantial evidence to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in the subdivision (c) of the Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

### **4.3 Effects Found to be Less Than Significant with Mitigation as Part of EIR Analysis**

The following environmental topics and thresholds were determined not to be significant as part of the EIR analysis with implementation of mitigation measures.

#### **4.3.1 Biological Resources**

- Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Plan, or other approved local, regional or state conservation plan?
- Would the project have a substantial adverse effect, either directly or through habitat modifications, on any endangered, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12)?
- Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

#### **4.3.2 Greenhouse Gases**

- Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

#### **4.3.3 Noise**

- Would the project expose people residing or working in the project area to excessive highway noise?
- Would the Project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?
- Would the Project expose persons to, or generation of, noise levels in excess of standards established in the local general plan, ordinance, or applicable standards of other agencies?



#### **4.3.4 Transportation/Traffic**

- Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated County roads? (Impacts to the I-15 freeway was found significant)

## 5.0 Environmental Impact Analysis

The California Environmental Quality Act (CEQA) requires consideration and discussion of significant environmental effects. Sections 15126-15126.2 of the *CEQA Guidelines* states, "All phases of a project must be considered when evaluating its impact on the environment: planning, acquisition, development, and operation...an EIR shall identify and focus on the significant environmental effects of the proposed project."

The purpose of this Draft EIR is to evaluate the potential environmental effects of the proposed Project. Riverside County circulated an IS/NOP for which the public review period ended August 3, 2017. The IS/NOP was transmitted to the State Clearinghouse, responsible agencies, and other affected agencies to solicit issues and concerns related to the Project. The IS/NOP, and comment letters are contained in Appendix A of this Draft EIR.

Sections 5.1 through 5.8 of the Draft EIR, examine the potential environmental impacts associated with implementation of the proposed Project and focuses on the following issues:

- Air Quality
- Biological Resources
- Greenhouse Gas Emissions
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Transportation and Traffic
- Tribal Cultural Resources

Those issue areas that were determined by the IS/NOP to have less than significant adverse environmental effects without and with mitigation measures are discussed in Section 4.0 of this document.

### Technical Studies

Technical studies providing detailed technical analyses that were used in this Draft EIR were prepared for various environmental issues, such as air quality, biological resources, cultural resources, greenhouse gas emissions, noise, and traffic. These documents are identified in the discussion for the individual environmental issue, and included as technical appendices on a CD attached to the Draft EIR.

### Analysis Format

The Draft EIR assesses how the proposed Project would impact the issue areas identified above. Each environmental issue addressed in this Draft EIR is presented in terms of the following subsections:

- **Setting:** Provides information describing the existing setting on or surrounding the Project site which may be affected as a result of the implementation of the Project and provides a description of the "baseline" conditions from which potential impacts are assessed. This section describes the physical conditions that existed when the IS/NOP was published and sent to responsible agencies and the State Clearinghouse.

- **Related Regulations:** Provides a discussion of the applicable regulations with respect to each environmental issue.
- **Comments Received in Response to the Notice of Preparation:** Identifies those parties responding to the IS/NOP. A summary of the six comment letters received is included in Section 2.0 of this EIR.
- **Project Design Considerations:** Provides a discussion of the Project design features as it relates to each environmental issue. Project design features are those features or elements of the Project that serve to avoid or minimize potential environmental impacts.
- **Thresholds of Significance:** Provides criteria for determining the significance of Project impacts for each environmental issue.
- **Environmental Impacts before Mitigation:** Provides a discussion of the characteristics of the proposed Project that may have an effect on the environment; analyzes the nature and extent to which the proposed Project is expected to change the existing environment, and whether or not the Project impacts are less than or exceed the levels of significance thresholds.
- **Proposed Mitigation Measures:** Identifies mitigation measures to reduce significant adverse impacts to the extent feasible.
- **Summary of Environmental Effects After Mitigation Measures are Implemented:** Provides a discussion of significant adverse environmental impacts that cannot be feasibly mitigated or avoided, significant adverse environmental impacts that can be feasibly mitigated or avoided, adverse environmental impacts that are not significant, and beneficial impacts.
- **Summary of Cumulative Environmental Effects After Mitigation Measures are Implemented:** Describes potential environmental changes to the existing physical conditions that may occur with the Project together with all other reasonably foreseeable, planned, and approved future projects or build out of the General Plan.

### Basis for Cumulative Impact Analysis

CEQA requires that an EIR contain an assessment of the cumulative impacts that may be associated with the proposed Project. As noted in CEQA Guidelines Section 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "A cumulative impact consists of an impact which is created because of the combination of the project evaluated in the EIR together with other projects creating related impacts."

The CEQA Guidelines (Section 15130(b)) describes two acceptable methods for identifying a study area for purposes of conducting a cumulative impact analysis. These two approaches include: "1) a list of past, present, and probable future projects producing related or cumulative impacts, including if necessary those projects outside the control of the agency, or 2) a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact."

## Assessment of Cumulative Impacts

The summary of projections approach is used in this EIR, except for the evaluation of cumulative traffic and vehicular-related air quality, greenhouse gas, and noise impacts. The cumulative traffic and vehicular-related air quality, greenhouse gas, and noise impacts is based on the past, present and reasonably foreseeable projects, or list of projects approach. The list of past, present, and reasonably foreseeable projects includes the nearby developments for opening year traffic conditions provided by the County of Riverside Department of Transportation staff and reflected in **Table 6.0-A - Cumulative Project Developments**, in **Section 6.1, Cumulative Impact Analysis**.

### 5.1 Air Quality

The focus of this section is to analyze potential impacts related to Air Quality. Based upon the analysis in the IS/NOP prepared for this Project (Appendix A), all thresholds related to Air Quality were found to have potentially significant impacts and are analyzed herein.

The analysis in this section is based, in part, on the Revised *Air Quality Analysis for the Toscana Village at Temescal Valley Project* (the AQ Study) prepared by Albert A. Webb Associates in January 2018. The AQ Study, which is included as Appendix B to this DEIR, evaluated whether the expected criteria air pollutant emissions that would be generated as a result of construction and long-term operations (i.e., vehicle emissions) of the proposed Project would cause significant impacts to air quality. The AQ Study was prepared within the context of the California Environmental Quality Act (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 and City staff, the California Emissions Estimator Model (CalEEMod™) version 2016.3.1 computer program was used to quantify Project-related emissions.

#### 5.1.1 Setting

##### Physical Setting

The proposed Project site is located within the South Coast Air Basin (the Basin), which is under the jurisdiction of the SCAQMD. The Basin consists of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The Project site is located within the County of Riverside, within the eastern portion of the Basin.

Regional and local air quality within the Basin 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 (SCAQMD 1993).

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 (SCAQMD 1993).

### **Climate**

Terrain and geographical location determine climate in the Basin. 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 Basin 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 Basin: 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. Generally, 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 Basin 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 (SCAQMD 1993).

### **Precipitation and Temperature**

Annual average temperatures in the Basin are typically in the low to mid-60 degrees Fahrenheit (°F). Temperatures above 100°F are recorded for all portions of the Basin during the summer months (SCAQMD 1993).

The rainy season in the Basin is November to April. Summer rainfall can occur as widely scattered thunderstorms near the coast and in the mountainous regions in the eastern area of the Basin. Rainfall averages vary throughout the Basin. For example, 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 Basin, with the most frequent occurrences of rainfall near the coast (SCAQMD 1993).

Locally, the climatological data from the nearby Corona and Elsinore stations shows an annual average precipitation of 12.01 and 12.56 inches, respectively.<sup>1</sup>

### **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.

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<sup>1</sup> <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca2031> and <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca2805>

Approximately 5 to 10 times a year, the Project site vicinity experiences strong, hot, dry desert winds 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 miles per hour have been recorded.

High winds, including 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.

### **Categories of Emission Sources**

Air pollutant emissions sources are typically grouped into two categories: stationary and mobile 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 many sources. Examples include residential water heaters; painting operations; lawn mowers; agricultural fields; landfills; and consumer products, such as barbecue lighter fluid and hair spray (SCAQMD 1993).

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 (SCAQMD 1993).

### **Criteria Air 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 (NO<sub>2</sub>) and nitric oxide (NO)—collectively known as oxides of nitrogen (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), 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 development is expected to be vehicle emissions. Motor vehicles primarily emit CO, NO<sub>x</sub>, and VOC/ROG/HC (Volatile Organic Compounds/Reactive Organic Gases/Hydrocarbons).

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 (O<sub>3</sub>), which is one of the products formed when NO<sub>x</sub> 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 Basin.

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 (EPA 2016). 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<sub>x</sub>)** – Those that are important in air pollution are nitric oxide (NO) and nitrogen dioxide (NO<sub>2</sub>). NO is a colorless, odorless gas formed by a combination of nitrogen and oxygen when combustion takes place under high temperatures and pressures. NO<sub>2</sub> 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<sub>x</sub>. NO<sub>2</sub> 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 2016).
- **Ozone (O<sub>3</sub>)** – 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 NO<sub>2</sub> and VOC which result in the formation of O<sub>3</sub>. Conditions that lead to high levels of O<sub>3</sub> 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).

Sources that contribute 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. (EPA 2016)

- **Sulfur dioxide (SO<sub>2</sub>)** – A colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. SO<sub>2</sub> can result in temporary breathing impairment in asthmatic children and adults engaged in active outdoor activities. When combined with PM, SO<sub>2</sub> 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 2016). Although SO<sub>2</sub> concentrations have been reduced to levels well below state and federal standards, further reductions in SO<sub>2</sub> emissions are needed because SO<sub>2</sub> 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 2016). 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 the use or production of 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 (SCAQMD 2005).

### Toxic Air Contaminants

Toxic air contaminants (TACs) are chemicals generally referred to as those contaminants 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.

### **Diesel Emissions**

Diesel particulate matter (DPM) is a TAC of concern throughout the entire Basin because of its potential toxicity.

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<sub>x</sub>). To combat NO<sub>x</sub> 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<sub>x</sub> to produce ozone (O<sub>3</sub>), 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<sub>x</sub>), NO<sub>x</sub>, 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.

### **Monitored Air Quality**

The Project site is located within SCAQMD Source Receptor Area (SRA) 25. The most recent published data for SRA 25 is presented in **Table 5.0-A: Air Quality Monitoring Summary – 2013 - 2015 (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. Atmospheric concentrations of ozone and particulate matter are the two most significant air quality concerns in the Project area. Locally, no second stage alert (0.35 ppm/hour) has been called by SCAQMD in over twenty years. In fact, the last second stage alert was in Upland in 1988.

**Table 5.0-A: Air Quality Monitoring Summary from 2013–2015 (SRA 25)**

No. Days Exceeded	Pollutant/Standard	Monitoring Years		
		2013	2014	2015
No. Days Exceeded	<b>Ozone (O<sub>3</sub>):</b>			
	Health Advisory - 0.15 ppm	0	--	--
	California Standard:			
	1-Hour - 0.09 ppm	6	4	18
	8-Hour - 0.07 ppm	25	13	35
	Federal Primary Standards:			
	8-Hour - 0.075 ppm	12	6	19
	Max 1-Hour Conc. (ppm)	0.102	0.104	0.131
	Max 8-Hour Conc. (ppm)	0.089	0.086	0.098
No. Days Exceeded	<b>Carbon Monoxide (CO):</b>			
	California Standard: <sup>b</sup>			
	1-Hour - 20 ppm	--	0	0
	8-Hour - 9.0 ppm	0	0	0
	Federal Primary Standards: <sup>b</sup>			
	1-Hour - 35 ppm	--	0	0
	8-Hour - 9.0 ppm	0	0	0
	Max 1-Hour Conc. (ppm)	--	2.0	0.8
	Max 8-Hour Conc. (ppm)	0.6	1.4	0.6
No. Days Exceeded	<b>Nitrogen Dioxide (NO<sub>2</sub>):</b>			
	California Standard:			
	1-Hour - 0.18 ppm (180 ppb)	0	0	0
	Federal Standard:			
	Annual Arithmetic Mean (53.4 ppb)	8.4	8.2	8.7
	Max. 1-Hour Conc. (ppb)	46.6	45.3	47.2
No. Days Exceeded	<b>Sulfur Dioxide (SO<sub>2</sub>)<sup>a</sup>:</b>			
	California Standards:			
	1-Hour - 0.25 ppm (250 ppb)	0	0	0
	Federal Primary Standards: <sup>c</sup>			
	1-Hour - 0.075 ppm (75 ppb)	0	0	0
	Max. 1-Hour Conc. (ppb)	8.1	5.6	1.9
No. Days Exceeded	<b>Suspended Particulates (PM-10)<sup>a</sup>:</b>			
	California Standards:			
	24-Hour - 50 µg/m <sup>3</sup>	10	17	5
	Federal Primary Standards:			
	24-Hour - 150 µg/m <sup>3</sup>	0	0	0
	Annual Arithmetic Mean (µg/m <sup>3</sup> )	33.8	36.7	18.7
	Max. 24-Hour Conc. (µg/m <sup>3</sup> )	135	100	90
No. Days Exceeded	<b>Fine Particulates (PM-2.5)<sup>a</sup>:</b>			
	Federal Primary Standards:			
	24-Hour - 35µg/m <sup>3</sup>	6	5	9

	Federal/State Annual Arithmetic Mean (12	12.5	12.5	11.9
	Max. 24-Hour Conc. ( $\mu\text{g}/\text{m}^3$ )	60.3	48.9	54.7

Notes: -- indicates no data available; ppm = parts per million; ppb = parts per billion;  $\mu\text{g}/\text{m}^3$  = micrograms/cubic meter

- <sup>a</sup> Metro Riverside County 1 air monitoring station (SRA 23) data summaries used because this pollutant not monitored for SRA 25. Except for PM-10 in 2015 for PM-10 in 2015.
- <sup>b</sup> The state and federal 1-hour and 8-hour standards were not exceeded.
- <sup>c</sup> The Federal  $\text{SO}_2$  standard for 24-hour and AAM standards revoked; established new 1-hour standard of 0.075 ppm, effective August 2, 2010.

## Attainment Status

The EPA has established national ambient air quality standards (NAAQS) for the six criteria pollutants described in **Table 5.0-A** to protect human health, with an adequate margin of safety. Likewise, the California EPA (CalEPA) has developed statewide standards for each of the criteria pollutants. If the concentration of one or more criteria pollutants within a geographic area is found to exceed the established statewide or NAAQS threshold level for one of the criteria pollutants, the area is considered to be in nonattainment for that pollutant.

SRA 25 and the proposed Project site are located within a portion of the Basin that is designated as nonattainment for PM-10 by the state, as well as nonattainment for ozone, and PM-2.5 under both the state and federal standards (see **Table 5.0-B: Attainment Status**). As a result, the SCAQMD is required to develop an Air Quality Management Plan (AQMP) for the Basin to bring the area into attainment for all criteria pollutants.

**Table 5.0-B: Attainment Status**

Criteria Air Pollutant	Attainment Designation	
	State	Federal
1-Hour Ozone	Nonattainment	Nonattainment (Extreme)
8-Hour Ozone	Nonattainment	Nonattainment (Extreme)
Carbon monoxide (1-Hour and 8-Hour)	Attainment	Attainment (Maintenance)
Nitrogen dioxide	Attainment	Attainment (Maintenance)
Sulfur dioxide	Attainment	Unclassifiable/Attainment
PM-10	Nonattainment	Attainment (Maintenance)
PM-2.5	Nonattainment	Nonattainment (Serious)

Source: <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caoqs-feb2016.pdf?sfvrsn=2>

## **Sensitive Receptors**

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution, as identified by the SCAQMD, may include children, the elderly, and people with cardiovascular and chronic respiratory diseases. Sensitive receptors may include residences, schools, playgrounds, athletic facilities, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes. Sensitive receptors in the Project vicinity primarily include existing residences to the west and southwest areas of the Project site.

### **5.1.2 Related Regulations**

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. Federal and State AAQS are presented in **Table 5.0-A**. 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).

#### **5.1.2.1 Federal Regulations**

##### **Environmental Protection Agency**

The EPA is responsible for enforcing the Federal Clean Air Act (CAA), the legislation that governs air quality in the United States. The EPA is also responsible for establishing the National NAAQS. NAAQS are required under the 1977 CAA and subsequent amendments. The EPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. The EPA has jurisdiction over emission sources outside state waters (e.g., beyond the outer continental shelf) and establishes emission standards, including those for vehicles sold in states other than California, where automobiles must meet stricter emission standards set by CARB.

#### **5.1.2.2 State Regulations**

##### **California Air Resources Board (CARB)**

In addition to being subject to the requirements of CAA, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). The CARB, which became part of the CalEPA in 1991, is responsible for administering the CCAA and establishing the California Ambient Air Quality Standards (CAAQS). The CCAA, as amended in 1992, requires all air districts in the state to achieve and maintain the CAAQS, which are generally more stringent than the federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

The CARB has broad authority to regulate mobile air pollution sources, such as motor vehicles. It is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. The CARB established passenger vehicle fuel specifications, which became effective in March 1996. The CARB oversees the functions of local air pollution control districts and air quality management districts, which, in turn, administer air quality activities at the regional and county levels. The state standards are summarized in **Table 5.0-A**.

The CCAA requires the CARB to designate areas within California as either attainment or non-attainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as non-attainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a state standard and are not used as a basis for designating areas as non-attainment. The CAAQS attainment status is shown in **Table 5.0-B**.

#### *CARB Air Quality and Land Use Handbook*

In addition to the above listed programs and regulations, the CARB's *Air Quality and Land Use Handbook* (CARB 2005) provides recommendations for siting new sensitive land uses. These recommendations include a 1,000-foot buffer between new sensitive land uses and freeways or urban roads with 100,000 vehicles per day. The Handbook also recommends avoiding the placement of new sensitive land uses within 300 feet of large gas stations (with throughput of 3.6 million gallons per or greater) and 50 feet between typical gas dispensing facilities. These are recommendations, not mandates, and land use decisions ultimately lie with the local agency which needs to balance other considerations.

#### *CARB Diesel Risk Reduction Program*

Under the CARB's Diesel Risk Reduction Program, mobile diesel emissions have their own set of reduction programs, as opposed to stationary diesel sources (generators) which are addressed separately under the Reduction Plan. One of the incentive programs for mobile diesel sources is the Carl Moyer Program which is a clean engine incentive program. This program provides money in the form of grants to cover the incremental portion of the cost to purchase cleaner burning engines or retrofitting existing ones.

Other programs include a program designed to develop and implement strategies to reduce emissions from new on-road heavy-duty diesel engines. The primary method of implementing this program will be through the development of emission control regulations and test procedures for those new engines. The California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles were amended on October 17, 2007 and reduce emission from new on-road heavy-duty diesel engines.

Strategies for reducing diesel emissions from existing on-road heavy duty engines are mainly implemented through three sections of this program: retrofit assessment, heavy-duty testing and field support, and retrofit implementation. CARB staff has developed a regulation to reduce diesel particulate matter and other emissions from existing on-road heavy-duty diesel-powered vehicles operating in California. These regulations were adopted by the CARB in December 2008 and last amended in December 2014. Beginning January 1, 2012, the Statewide Truck and Bus

rule began requiring heavier trucks to be retrofitted diesel exhaust filters, and requires older truck replacement which started in January 2015. By 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent.

## **California Energy Resources Conservation and Development Commission**

### ***Title 24 Standards***

#### *Energy Efficiency Standards*

Energy Conservation Standards for new residential and commercial buildings were originally adopted by the California Energy Resources Conservation and Development Commission in June 1977 and most recently revised in 2016. In general, Title 24 standards require the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods.

The 2016 Building Energy Efficiency Standards contained in Part 6 of Title 24 in the California Code of Regulations (CCR) (also known as the California Energy Code), and associated administrative regulations in Part 1 (collectively referred to here as the Standards) went into effect January 1, 2017. The 2016 Building Energy Efficiency Standards are 28 percent more efficient than previous standards for residential construction and 5 percent better for nonresidential construction than the previous 2013 standards.<sup>2</sup> The standards offer builders better windows, insulation, lighting, ventilation systems and other features that reduce energy consumption in homes and businesses.

#### *California Green Building Code*

Part 11 of the California Building Standards Code in Title 24 of the CCR<sup>3</sup> is also known as the CALGreen Code. The development of the CALGreen Code is intended to: (1) cause a reduction in greenhouse gas emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. The following sections of the CALGreen Code are applicable to this Project:

#### *CALGreen Section 5.106.4*

Bicycle parking. Comply with Sections 5.106.4.1 and 5.106.4.2; or meet local ordinance or the University of California Policy on Sustainable Practices, whichever is stricter.

5.106.4.1 Short-term bicycle parking. If the project is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5 percent of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack.

<sup>2</sup> [http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2015-06-10\\_hearing/2015-06-10\\_Adoption\\_Hearing\\_Presentation.pdf](http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2015-06-10_hearing/2015-06-10_Adoption_Hearing_Presentation.pdf).

<sup>3</sup> 2016 Title 24 Part 11 of the California Building Standards Code can be accessed at: <https://codes.iccsafe.org/public/chapter/content/2058/>.

5.106.4.2 Long-term bicycle parking. For buildings with over 10 tenant-occupants, provide secure bicycle parking for 5 percent of motorized vehicle parking capacity, with a minimum of one space. Acceptable parking facilities shall be convenient from the street and may include: 1. Covered, lockable enclosures with permanently anchored racks for bicycles; 2. Lockable bicycle rooms with permanently anchored racks; and 3. Lockable, permanently anchored bicycle lockers. Note: Additional information on recommended bicycle accommodations may be obtained from Sacramento Area Bicycle Advocates.

*CALGreen Section 5.106.5.2*

Designated parking for clean air vehicles. In new projects or additions or alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles. Projects with 201 parking spaces or over require at least 8 percent of total number of parking spaces. The project will comply with section 106.5.2 Designated parking for clean air vehicles by including 27 clean air/ Van pool stalls.

*CALGreen Section 5.106.5.3*

Construction shall facilitate installation of electric vehicle supply equipment (EVSE). When EVSEs are installed it shall be in accordance with the California Building Code.

5.106.5.3.2 Multiple charging space requirements. When multiple charging spaces are required raceways are required to be installed at the time of construction and shall be installed in accordance with the California Electrical Code. Construction plans and specifications shall include, but are not limited to, the following:

1. The type and location of the EVSE.
2. The raceway(s) shall originate at a service panel or a subpanel(s) serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and into listed suitable cabinet(s), box(es), enclosure(s) or equivalent.
3. Plan design shall be based upon 40-ampere minimum branch circuits.
4. Electrical calculations shall substantiate the design of the electrical system, to include the rating of equipment and any on-site distribution transformers and have sufficient capacity to simultaneously charge all required EVs at its full rated amperage.
5. The service panel or subpanel(s) shall have sufficient capacity to accommodate the required number of dedicated branch circuit(s) for the future installation of the EVSE.

*CALGreen Section 5.504.5.3*

In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air that provides at least a Minimum Efficiency Reporting Value (MERV) of 8. Specified filters shall be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.

### **Statewide Diesel Regulations**

In 1990, the State of California listed diesel exhaust as a known carcinogen under its Safe Drinking Water and Toxic Enforcement Act (Proposition 65). In 1998, the CARB listed diesel particulate as a TAC.

The CARB, a sub-agency of the CalEPA, took the lead on addressing diesel emissions in the State of California. The first step to significantly reduce diesel emissions occurred in September 2000 when the CARB approved the "Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles" or Diesel Risk Reduction Plan. The two main goals of the Diesel Risk Reduction Plan are: 1) to get new diesel fueled engines to use state-of-the-art emission controls as well as low-sulfur diesel fuel and, 2) for existing diesel engines to be retrofitted with emission control features. Effects of meeting these goals set by the CARB would be reducing the health effects experienced by Californians from diesel exhaust.

Since most off-road vehicles today have no emission controls and can last 30 years or longer, the CARB approved a regulation in 2007 to reduce emissions from existing off-road diesel vehicles used in construction and other industries. This regulation establishes emission rates targets that decline over time to accelerate turnover to newer, cleaner engines and require exhaust retrofits to meet these targets. The regulation took effect on the larger fleets first, with average compliance dates in 2010, while medium and small fleet requirements achieved compliance in 2013 and 2015, respectively. This regulation also includes the Surplus Off-Road Opt-in for NOx (SOON) program. The local air districts may opt into the SOON program to reduce NOx emissions beyond what is required by the regulation. Staff at the SCAQMD proposed Rule 2449 which would implement the SOON program. This rule was adopted by the SCAQMD in 2008. Opting in to this program was anticipated to achieve a 12 ton per day reduction in NOx by 2014.

### **Other Statewide Regulations**

Also, some statewide regulations proposed to reduce one form of pollutant have the added benefit of reducing other forms of pollution. For example, when the CARB approved the Heavy-Duty Vehicle Greenhouse Gas Reduction Measure in 2008 and the most recent amendments in December 2014 to reduce greenhouse gas emissions from heavy-duty trucks, it also reduces NOx emissions. This measure requires a compliance schedule for trucks to be certified under the USEPA SmartWay Program, which reduces fuel consumption by improving fuel efficiency through improvements to tractor and trailer aerodynamics and low-rolling resistance tires.

On February 1, 2005, a requirement limiting the idling of diesel-fueled commercial vehicles to five minutes at any location pursuant to Section 2485 of Chapter 10 within Title 13 of CCR was adopted. Similarly, Section 2449 prohibits construction equipment and truck idling times shall be prohibited in excess of five minutes on site.

Off-road diesel vehicles are also regulated under the CARB for both in-use (existing) and new engines. Off-road diesel vehicles include construction equipment. There have been four sets of off-road standards implemented by the CARB, known as Tiers. Tier 1 standards began in 1996. Tier 2 and 3 were adopted in 2000 and were more stringent than the first tier. Tier 2 and 3 standards were completely phased in by 2006 and 2008, respectively. In December 2004, the CARB adopted the Tier 4 or fourth phase of emission standards for late model year engines. These emission standards are nearly identical to those finalized by the USEPA in May 2004.



These standards, which commenced in 2011, are estimated to decrease PM and NOx emissions by 90 percent below pre-2011 levels.

### 5.1.2.3 Regional Regulations

#### South Coast Air Quality Management District (SCAQMD)

The 1977 Lewis Air Quality Management Act merged four air pollution control district to create the SCAQMD to coordinate air quality planning efforts throughout Southern California. It is responsible for monitoring air quality, as well as planning, implementing, and enforcing programs designed to attain and maintain state and federal ambient air quality standards. Programs include air quality rules and regulations that regulate stationary sources, area sources, point sources, and certain mobile source emissions. The SCAQMD is also responsible for establishing stationary source permitting requirements and for ensuring that new, modified, or relocated stationary sources do not create net emission increases.

The SCAQMD monitors air quality over its jurisdiction of 10,743 square miles, including the Basin, which covers an area of 6,745 square miles and is bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino and San Jacinto mountains to the north and east; and the San Diego County line to the south. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The SCAQMD also regulates the County portion of the Salton Sea Air Basin and Mojave Desert Air Basin. The SCAQMD has developed a variety of plans and rules aiming to improve air quality within the Basin, as discussed below.<sup>4</sup>

#### *Air Quality Management Plan*

All areas designated as non-attainment under the CCAA are required to prepare plans showing how they will meet the air quality standards. The SCAQMD prepares the Air Quality Management Plan (AQMP) to address CAA and CCAA requirements by identifying policies and control measures. In March 2017, the SCAQMD adopted its 2016 AQMP, which is now the legally enforceable plan for meeting ozone and PM-2.5 standards.

The most effective way to reduce air pollution impacts on the health of the nearly 17 million residents within the Basin, including those in disproportionately impacted and environmental justice communities that are concentrated along transportation corridors and goods movement facilities, is to reduce emissions from mobile sources, the principal contributor to air quality challenges within the Basin. For that reason, the SCAQMD has been and will continue to be closely engaged with CARB and the U.S. EPA who have primary responsibility for these sources. The 2016 AQMP recognizes the critical importance of working with other agencies to develop funding and other incentives that encourage the accelerated transition of vehicles, buildings, and industrial facilities to cleaner technologies in a manner that benefits not only air quality, but also local businesses and the regional economy. These “win-win” scenarios are key to implementation of the 2016 AQMP with broad support from a wide range of stakeholders.

The Southern California Association of Governments (SCAG) assists by preparing the transportation portion of the AQMP. This includes the preparation of a Sustainable Communities

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<sup>4</sup> SCAQMD Rulebook can be accessed at: <http://www.aqmd.gov/home/regulations/rules/scaqmd-rule-book>.

Strategy (SCS) that responds to planning requirements of SB 375 and demonstrates the region's ability to attain greenhouse gas reduction targets set forth in state law. The SCS identifies regional and local efforts to promote new housing and employment in high-quality transit areas that will support development patterns that complement the evolving transportation network. The SCS was incorporated into the 2016 Regional Transportation Plan, adopted by SCAG on April 7, 2016. The AQMP for the Basin establishes a program of rules and regulations directed at attainment of the state and national air quality standards. Ultimately, a project's operational cumulative impact is judged against its consistency with the applicable Air Quality Management Plan. Conformance with the AQMP for development projects is determined by demonstrating compliance with local land use plans.

#### *Rule 220*

SCAQMD Rule 220 gives the Executive Officer the power to exempt a source from prohibitions outlined in SCAQMD Regulations IV and XI, Prohibitions and Source Specific Standards respectively, if they can make the finding that the installation of controls and/or process changes required to achieve compliance with the subject prohibitory rule will result in a net adverse impact on air quality. One of the conditions of the permits on exemptions issued under Rule 220 is that alternative controls and/or process changes which will result in the greatest practical net emission reduction be included for project operation.

#### *Rule 402*

SCAQMD Rule 402 (Nuisance) prohibits the discharge of air containments in such quantities that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, but does not apply to odors emanating from agricultural operations necessary for growing of crops or the raising of fowl or animals.

#### *Rule 403*

The Project will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. The potential requirements include the application of water or chemical stabilizers to disturbed soils at least twice a day, 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.

#### *Rule 461*

SCAQMD Rule 461 applies to gasoline transfer and dispensing stations. Rule 461 has annual throughput reporting requirements and is designed to regulate gasoline vapor emissions from gasoline transfer and dispensing processes which contain volatile organic compounds (VOCs) and toxic air contaminants (TACs) such as benzene, toluene, xylenes, and methyl tertiary butyl ether (MTBE). All retail service stations under SCAQMD jurisdiction have Phase I and II vapor recovery systems to control gasoline emissions. Phase I vapor recovery refers to the collection of gasoline vapors displaced from storage tanks when cargo tank trucks make gasoline

deliveries. Phase II vapor recovery systems control the vapors displaced from the vehicle fuel tanks during refueling. Gas stations are also be subject to SCAQMD Rule 2588 – Air Toxics “Hot Spots” Program.<sup>5</sup>

*Rule 481*

SCAQMD Rule 481 applies to all spray painting and spray coating operations and equipment and requires all spray coating equipment to be (1) operated inside an approved control enclosure, (2) applied using high velocity-low pressure (HVLP), electrostatic and/or airless spray equipment, or (3) applied using which has an equal effectiveness to either of the two approved methods.

*Rule 1108*

SCAQMD Rule 1108 applies to cutback and emulsified asphalt used at project sites.

*Rule 1138*

SCAQMD Rule 1138 applies to restaurant cooking operations that use chain-driven charbroilers to cook meat for human consumption.

*Rule 1143*

SCAQMD Rule 1143 aims to reduce emissions of VOCs from the use, storage, and disposal of consumer paint thinners and multi-purpose solvents commonly used in thinning of coating materials, cleaning of coating application equipment and other solvent cleaning operations by limiting their VOC content. Additionally, Rule 1143 requires several best management practices to reduce VOCs during use and application of paint thinners and other solvents. For example, this Rule requires containers to be closed when not in use. This Rule also establishes requirements for appropriate labelling and disclosure of contents for containers and storage areas of these corrosive, flammable substances.

*Rule 1186*

SCAQMD Rule 1186 is intended to reduce the amount of particulate matter entrained in the ambient air as a result of vehicular traffic on paved and unpaved public roads, and at livestock operations. This includes requirements for local governments that contract for street sweeping services to utilize only certified street sweeping equipment.

*Rule 1113*

SCAQMD Rule 1113 governs the sale of architectural coatings and limits the volatile organic content (VOC) content in paints and paint solvents. This rule will dictate the VOC content of paints available for use during the construction of the buildings.

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<sup>5</sup> <https://www.aqmd.gov/prdas/AB2588/AB2588.html>

*Rule 1303*

SCAQMD Rule 1303 prohibits issuance of permits for any relocation or for any new or modified source which results in an emission increase of any nonattainment air contaminant, any ozone depleting compound, or ammonia unless a best available control technology (BACT) is employed for the new or relocated source as specified by the Clean Air Act or other regulations.

**5.1.2.4 Local Regulations****Riverside County General Plan**

The Air Quality Element of the Riverside County General Plan (GP) contains the following goals, policies and implementation measures related to air quality to which project will be required to comply:

*County of Riverside GP – Air Quality Element*

- AQ 1.1** Promote and participate with regional and local agencies, both public and private, to protect and improve air quality.
- AQ 1.3** Participate in the development and update of those regional air quality management plans required under federal and state law, and meet all standards established for clean air in these plans.
- AQ 1.4** Coordinate with the SCAQMD and MDAQMD to ensure that all elements of air quality plans regarding reduction of air pollutant emissions are being enforced.
- AQ 2.1** The County land use planning efforts shall assure that sensitive receptors are separated and protected from polluting point sources to the greatest extent possible.
- AQ 4.9** Require compliance with SCAQMD Rules 403 and 403.1, and support appropriate future measures to reduce fugitive dust emanating from construction sites.
- AQ 5.1** Utilize source reduction, recycling and other appropriate measures to reduce the amount of solid waste disposed of in landfills.
- AQ 8.8** Promote land use patterns which reduce the number and length of motor vehicle trips.
- AQ 16.1** Cooperate with local, regional, state and federal jurisdictions to better control particulate matter.
- AQ 17.1** Reduce particulate matter from agriculture, construction, demolition, debris hauling, street cleaning, utility maintenance, railroad rights-of-way, and off-road vehicles to the extent possible.

**5.1.1.1** *County of Riverside GP - Healthy Communities Element*

- HC 2.2** Promote increased physical activity, reduced driving and increased walking, cycling and public transit by: (AI 139, 140)
- a) Requiring where appropriate the development of compact, development patterns that are pedestrian and bicycle friendly.
  - b) Increasing opportunities for active transportation (walking and biking) and transit use.
  - c) Encouraging the development of neighborhood grocery stores that provide fresh produce.
- HC 3.1** Where appropriate, require high density, mixed use development near existing and proposed high use transit centers.
- HC 3.3** Where appropriate, require pedestrian-oriented design that encourages the use of bicycles and walking as alternatives to driving and increases levels of physical activity.
- HC 5.5** When building sidewalks, ensure that they are sufficiently wide and clear of obstructions to facilitate pedestrian movement and access for the disabled.
- HC 5.6** Implement traffic-calming and traffic-slowng measures on roads with a high level of pedestrian and non-motorized vehicle activity. (AI 138, 142, 143)
- HC 6.1** Coordinate with transportation service providers and transportation planning entities to improve access to multi-modal transportation options throughout the County of Riverside, including public transit.
- HC 6.3** Coordinate with transportation service providers and transportation planning entities to ensure that public transportation facilities are located a convenient distance from residential areas.
- HC 6.5** Promote job growth within Riverside County to reduce the substantial out-of-county job commutes that exist today.
- HC 9.2** Require appropriate infrastructure, public facilities, and services
- HC 9.4** Improve safety and the perception of safety by requiring adequate lighting, street visibility, and defensible space.
- HC 9.5** Where appropriate, require neighborhood retail, service and public facilities within walking distance of residential areas.
- HC 11.1** Improve access to fresh fruits, vegetables, and other healthy food by encouraging a mix of food establishments that offer healthy food choices

- HC 14.1** When feasible, avoid siting homes and other sensitive receptors near known or anticipated sources of air pollution
- HC 14.2** When feasible, avoid locating new sources of air pollution near homes and other sensitive receptors.
- HC 14.3** When feasible incorporate design features into projects, including flood control and water quality basins, to minimize the harborage of vectors such as mosquitoes.

### **5.1.3 Comments Received in Response to NOP**

In response to the Notice of Preparation (NOP), one comment letter from SCAQMD was received related to air quality.

### **5.1.4 Project Design Considerations**

The Project proposes a mix of non-residential land uses in close proximity to residential uses, which reduce vehicle miles travelled (VMT). The Project will also improve sidewalks on adjacent roadways to improve pedestrian access.

Additionally, all heavy-duty off-road construction equipment engines used during mass grading for Phase 1, except for scrapers and tractor/loader/backhoes, will be Tier 2 or better to reduce construction-related NO<sub>x</sub> emissions.

### **5.1.5 Thresholds of Significance**

The Riverside County Planning Department has not established local CEQA significance thresholds as described in Section 15064.7 of the State CEQA Guidelines. The Riverside County Planning Department generally utilizes the CEQA significance thresholds in Appendix G ("Environmental Checklist") of the State CEQA Guidelines. The Environmental Checklist prepared by the County for the Project (see Appendix A of this document) indicates that impacts related the Toscana Village at Temescal Valley Project may be considered potentially significant if the proposed 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 nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors which are located within one mile of the project site to substantial point source emissions;
- Involve the construction of a sensitive receptor located within one mile of an existing substantial point source emitter; and or

- Create objectionable odors affecting a substantial number of people.

### 5.1.6 Environmental Impacts before Mitigation

**Threshold:** *Conflict with or obstruct implementation of the applicable air quality plan.*

The County of Riverside is located within the South Coast Air Basin ("the Basin"), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). SCAQMD has prepared an Air Quality Management Plan (AQMP) for the Basin to establish a comprehensive program to lead the Basin into compliance with all federal and state air quality standards. In particular, the proposed Project site is located within a portion of the Basin that is designated as nonattainment for PM-10 by the state, as well as nonattainment for ozone (O<sub>3</sub>), and PM-2.5 under both the state and federal standards (see **Table 5.0-B**, above). The control measures and related emission reduction estimates included in the AQMP are based upon emissions projections for a future development scenario derived from land use, population, and employment estimates defined in consultation with local governments. Accordingly, if a project demonstrates compliance with local land use plans and/or population projections, then the AQMP would have taken into account such uses when it was developed and the project would not conflict with implementation of such a plan.

The Project site is currently designated as Community Development: Light Industrial (CD:LI) in the County's General Plan (GP) (see Figure 3.0-5 – General Plan Land Use); however, the Project includes a General Plan Amendment (GPA) to change the land use designation to Community Development: Commercial Retail (CD:CR). Therefore, the proposed Project is not consistent with local land use plans and has the potential to conflict with implementation of the SCAQMD AQMP. In particular, the air quality analysis for the proposed Project shows that operation of the proposed Project will exceed the SCAQMD long-term regional significance threshold for NO<sub>x</sub> (see **Table 5.0-E** and **Table 5.0-F**, below). During the summer's long daylight hours, plentiful sunshine provides the energy needed to fuel photochemical reactions between NO<sub>2</sub> and VOC which result in the formation of O<sub>3</sub>. Therefore, operation of the proposed Project will contribute to the levels of O<sub>3</sub>, a pollutant for which the Basin is in nonattainment and may conflict the emission reduction estimates in the AQMP.

Because the proposed Project is not compliant with local land use plans and population projections and because the proposed Project will exceed the SCAQMD regional significance threshold for NO<sub>x</sub>, the proposed Project would conflict with or obstruct implementation of the AQMP and impacts will be **significant and unavoidable**.

**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 AQ Study which is found in Appendix B of this DEIR.

The construction and operation analysis was performed using CalEEMod™ (California Emissions Estimation Model, Version 2016.3.1), the official statewide land use computer model designed to provide a uniform platform for estimating potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations of land use projects under CEQA. The model quantifies direct emissions from construction and operations (including vehicle use), as well as indirect emissions, such as emissions from energy use. The mobile source emission factors used in the model (EMFAC2014) includes the Pavley standards and Low Carbon Fuel standards into the mobile source emission factors. The model also identifies Project design considerations, regulatory measures, and mitigation measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from the selected measures.

### SCAQMD's Regional Significance Threshold (RST) Analysis

The thresholds shown in **Table 5.0-C** 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.

**Table 5.0-C: SCAQMD CEQA Regional Significance Thresholds**

Emission Threshold	Units	VOC	NOx	CO	SO <sub>x</sub>	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 associated with construction of the Project will 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, asphalt degassing and architectural coating (painting) operations.

Project-related short-term emissions were evaluated using the CalEEMod version 2016.3.1 computer program. The model evaluated emissions resulting from demolition, grading, building construction, paving, and architectural coating. The total construction period is expected to require approximately 14 months beginning no earlier than January 2018. The default parameters within CalEEMod were used and these default values reflect a worst-case scenario, which means that Project emissions are expected to be equal to or less than the estimated construction emissions. In addition to the default values used, the following assumptions relevant to construction were used to model short-term construction emissions:

- The Project will be developed in two non-overlapping phases. Phase 1 involves the construction of a gas station with 12 vehicle fueling positions, two (2) fast food restaurants with drive-thru totaling 6,800 square feet (SF), a 10,500 SF high turnover restaurant, and 39,900 SF of retail uses. Phase 2 involves the construction of 42,000 SF of general office space, 21,000 SF of retail uses, a 43,000 SF supermarket, a 3,500 SF drive-in bank or restaurant, a 9,500 SF high turnover restaurant, and a 14,000 SF pharmacy with a drive-thru.



- The Project includes off-site roadway improvements and construction of off-site water, sewer, and non-potable water pipeline extensions in Temescal Canyon Road to connect to existing lines.
- The entire 27-acre Project site will be mass graded in Phase 1, and additional off-site grading will be performed to accommodate the off-site improvements associated with the Project, including paving for 0.12 acres for roadway improvements adjacent to the Project site and 0.75 acres for water, sewer non-potable water pipeline extensions in Temescal Canyon Road to connect to existing lines. Additionally, a 3.3-acre Caltrans right-of-way area to the south of the Project site will be graded.
- The off-road equipment to be used for each activity during construction of both Phase 1 and Phase 2 is shown below and represents Project-specific information provided by the applicant. The same number of each type of equipment listed below will be used during both Phase 1 and Phase 2, with the exception of generator sets. Five diesel generators will be used during construction of Phase 1 until permanent electricity service is provided to the site; however, no generators will be needed during Phase 2.
- As a Project design feature, all equipment used during grading for Phase 1, except for scrapers and tractor/loader/backhoes, will be Tier 2 or better to reduce construction-related NO<sub>x</sub> emissions. This Project commitment will be included in the construction specifications.
- To evaluate Project compliance with SCAQMD Rule 403 for fugitive dust control, the Project will utilize 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.
- Two (2) one-way vendor trips were specifically included during demolition, grading, and paving activities to account for water truck trips.
- CalEEMod defaults for VOC content for architectural coatings were used which incorporate SCAQMD Rule 1113.

The construction equipment estimated to be used for each activity is identified in the AQ Study (Appendix B). **Table 5.0-D: Estimated Daily Construction Emissions** summarizes the estimated construction emissions.

**Table 5.0-D: Estimated Daily Construction Emissions**

Activity	Peak Daily Emissions (lb/day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM-10	PM-2.5
<b>SCAQMD Daily Construction Thresholds</b>	<b>75</b>	<b>100</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>Phase 1</b>						
Grading	6.14	95.47	62.54	0.11	7.44	4.58
Building Construction	9.10	71.00	67.00	0.18	10.68	4.90
Paving	3.52	20.64	18.43	0.03	1.38	1.13
Architectural Coatings	42.31	3.12	8.06	0.02	1.47	0.54
<b>Maximum<sup>1</sup></b>	<b>42.31</b>	<b>95.47</b>	<b>85.43</b>	<b>0.21</b>	<b>12.06</b>	<b>6.03</b>
<b>Exceeds Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
<b>Phase 2</b>						
Grading	6.14	95.69	62.59	0.11	7.38	4.57
Building Construction – 2018	4.32	35.14	30.50	0.08	5.09	2.34
Building Construction – 2019	3.87	32.00	28.51	0.08	4.88	2.15
Paving	3.75	18.24	18.20	0.03	1.23	0.98
Architectural Coatings	31.95	2.63	4.77	0.01	0.76	0.33
<b>Maximum<sup>2</sup></b>	<b>31.95</b>	<b>95.69</b>	<b>62.59</b>	<b>0.11</b>	<b>7.38</b>	<b>4.57</b>
<b>Exceeds Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Note: <sup>1</sup> Maximum emissions for Phase 1 are the greater of grading or architectural coating alone, or the sum of building construction and paving together because these activities overlap.

<sup>2</sup> Maximum emissions for Phase 2 are the greater of grading, building construction in 2018, or architectural coating alone, or the sum of building construction in 2019 and paving together because these activities overlap.

Source: AQ Study, Table 2

Evaluation of **Table 5.0-D** indicates that criteria pollutant emissions from construction activities will not exceed any of the SCAQMD regional daily thresholds during Project construction. The construction activities that may overlap include building construction and paving in Phase 1 or building construction and paving in Phase 2.

### Long-Term Impacts – RST Analysis

Long-term emissions are evaluated for buildout of a project. The Project is assumed to be operational in 2020. Mobile emissions refer to on-road motor vehicle emissions generated from the Project's traffic and based on the trip generation rates contained in the Traffic Impact Analysis for the proposed Project (Appendix G). Based on the CalEEMod User's Guide and the California Air Pollution Control Officers Association's (CAPCOA's) Quantifying Greenhouse Gas Mitigation Measures, the Project will increase the diversity of land uses (i.e. mixed-use) in the Project vicinity and having different land use near one another can reduce vehicle miles travelled

(VMT).<sup>6</sup> Additionally, sidewalks will be constructed on adjacent roadways to improve pedestrian access. CalEEMod calculates the effects of these improvements with regard to a reduction in VMT based on user-provided input and the CAPCOA document. Therefore, the CalEEMod input for improving the Project site's pedestrian network and the setting for increasing diversity in a suburban center were selected.

Area source emissions from the Project include stationary combustion emissions of natural gas used for space and water heating (shown in a separate row as energy), yard and landscape maintenance, consumer use of solvents and personal care products, and an average building square footage to be repainted each year. CalEEMod computes area source emissions based upon default factors and land use assumptions. CalEEMod contains the 2013 Title 24 energy efficiency standards. While the proposed Project would be subject to the 2016 Title 24 standards, which are five percent more efficient than the 2013 Title 24 standards, this improved efficiency was not included in the CalEEMod modeling (CEC 2015). Therefore, the emissions were conservatively modeled. Separate emissions were calculated for both the summer and winter.

Project-related operational emissions were computed and the results are presented below in **Table 5.0-E: Estimated Daily Project Operation Emissions (Summer)** and **Table 5.0-F: Estimated Daily Project Operation Emissions (Winter)**.

**Table 5.0-E: Estimated Daily Project Operation Emissions (Summer)**

Source	Peak Daily Emissions (lb/day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM-10	PM-2.5
<b>SCAQMD Daily Thresholds</b>	<b>55</b>	<b>55</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
Area	5.08	0.00	0.06	0.00	0.00	0.00
Energy	0.26	2.33	1.96	0.01	0.18	0.18
Mobile	46.34	291.60	344.35	1.22	74.02	20.56
<b>Total</b>	<b>51.68</b>	<b>293.93</b>	<b>346.37</b>	<b>1.23</b>	<b>74.20</b>	<b>20.74</b>
<b>Exceeds Threshold?</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Note: Emissions reported as zero are rounded and not necessarily equal to zero.

Source: AQ Study, Table 3

<sup>6</sup> California Air Pollution Control Officers Association (CAPCOA), *Quantifying Greenhouse Gas Mitigation Measures*, August 2010. (Available at: <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>).

**Table 5.0-F: Estimated Daily Project Operation Emissions (Winter)**

Source	Peak Daily Emissions (lb/day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM-10	PM-2.5
<b>SCAQMD Daily Thresholds</b>	<b>55</b>	<b>55</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
Area	5.08	0.00	0.06	0.00	0.00	0.00
Energy	0.26	2.33	1.96	0.01	0.18	0.18
Mobile	38.52	287.57	321.36	1.12	74.04	20.58
<b>Total</b>	<b>43.86</b>	<b>289.9</b>	<b>323.38</b>	<b>1.13</b>	<b>74.22</b>	<b>20.76</b>
<b>Exceeds Threshold?</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Note: Emissions reported as zero are rounded and not necessarily equal to zero.

Source: AQ Study, Table 4

Evaluation of the modeling results presented in the above table indicates that criteria pollutant emissions from operation of the proposed Project will exceed the SCAQMD regional daily threshold for NO<sub>x</sub> during both summer and winter.

**RST Analysis Conclusion:** Based on the RST for the proposed Project, short-term emissions will not exceed the daily regional thresholds set by SCAQMD for any criteria pollutants.

Long-term operational emissions will only exceed the daily regional threshold set by SCAQMD for NO<sub>x</sub>.

### SCAQMD's Localized Significance Threshold (LST) Analysis

As part of the SCAQMD's environmental justice program, staff at SCAQMD developed localized significance threshold (LST) methodology (SCAQMD 2008b) that can be used by public agencies to determine whether or not a project may generate significant adverse localized air quality impacts (both short-term and long-term) to sensitive receptors. SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours, such as residences, hospitals, or convalescent facilities. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area (SRA).

The pollutants analyzed under the localized significance threshold (LST) are CO, NO<sub>x</sub>, PM-10, and PM-2.5 (SCAQMD 2008b). Of these pollutants, the "attainment pollutants" (CO and NO<sub>x</sub>) 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 within 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 that would be necessary to worsen the existing violation in SRA 25, using the allowable change in concentration thresholds approved by the SCAQMD. Therefore, the tabulated LSTs represent the maximum mass emissions from a project that would not cause or contribute to an exceedance of state or federal ambient air quality standards (AAQS) for the above pollutants, and were developed based on ambient concentrations of these pollutants for each SRA in the Basin.

### Short-Term LST Analysis

The SCAQMD Governing Board adopted a methodology for calculating localized air quality impacts through localized significance thresholds (also referred to as a LST analysis). Localized significance thresholds represent the maximum emissions from a project that would not cause or contribute to an exceedance of the most stringent applicable state or federal ambient air quality standards. Localized significance thresholds were developed in recognition of the fact that criteria pollutants such as CO, NO<sub>x</sub>, and PM-10 and PM-2.5, can have local impacts at nearby sensitive receptors as well as regional impacts.

The localized assessment methodology limits the emissions in the analysis to those generated from on-site activities. 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 (SCAQMD 2008). Although the total Project site is approximately 27 acres, it is anticipated that an area of approximately six acres per day would be disturbed during grading for Phase 1 and Phase 2 (SCAQMD 2008).<sup>7</sup> Localized emissions from Phase 1 construction were analyzed as they represent the worst-case emissions because the grading for Phase 2 would use the same equipment as grading for Phase 1, but occurs in a later year than Phase 1; therefore, because cleaner construction equipment is generally required over time, emissions from grading of Phase 2 and subsequent construction activities would be lessened compared to Phase 1. To ensure a conservative analysis, the on-site emissions from Phase 1 were compared to the LST for five acres at 100 meters. Additional detail is found in the AQ Study (Appendix B).

The LST thresholds are estimated for each SRA using the maximum daily disturbed area (in acres) and the distance of the Project to the nearest sensitive receptors (in meters). The closest sensitive receptors to the Project site are residential houses located approximately 170 meters (558 feet) west of the Project site across Interstate-15 off of Campbell Ranch Road (**Figure 3.0-2 – Aerial Map**). Therefore, a receptor distance of 100 meters was used to ensure a conservative analysis. The results of the short-term LST analysis are summarized in **Table 5.0-G: LST Results for Construction Emissions**, below.

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<sup>7</sup> SCAQMD, *Fact Sheet for Applying CalEEMod to LST* available at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf?sfvrsn=2>.

**Table 5.0-G: LST Results for Construction Emissions**

Pollutant	Peak Daily Emissions (lb/day)			
	NO <sub>x</sub>	CO	PM-10	PM-2.5
<b>LST Threshold for 5 acres at 100 meters</b>	<b>520</b>	<b>4,282</b>	<b>59</b>	<b>16</b>
Grading	95.3	61.2	7.1	4.5
Building Construction	41.7	33.8	2.7	2.6
Paving	20.5	17.4	1.2	1.1
<b>Maximum<sup>1</sup></b>	<b>95.3</b>	<b>61.2</b>	<b>7.1</b>	<b>4.5</b>
<b>Exceeds Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Note: <sup>1</sup> Maximum emissions are the greater of either grading alone or building construction and paving since these activities overlap.

Source: AQ Study, Table 5

As indicated in the above table, Project-related short-term construction emissions do not exceed any of the SCAQMD-established LSTs.

### Long-Term LST Analysis

According to the LST methodology, LSTs only apply to the operational phase if a project includes stationary sources or attracts mobile sources that may spend long periods of time idling at the site, such as warehouse/transfer facilities. The proposed Project does not include such uses. Therefore, due to the lack of stationary source emissions, no long-term LST analysis is required.

### LST Analysis Conclusion

Based on the LST analysis, the short-term construction of the Project will not exceed SCAQMD LST at sensitive receptors within the Project vicinity for any criteria pollutants. The proposed Project does not include stationary sources or attract mobile sources of emissions that may spend long hours idling at the site; therefore, long-term operational LST analysis is not warranted. No mitigation is required for LST impacts.

### CO Hot Spots

In order to ensure that the State and Federal ambient air quality standards for CO are not violated, the SCAQMD recommends that projects with a potential to generate heavy volumes of traffic, and which can lead to high levels of CO, use hot spot modeling to determine the potential to create a CO "Hot Spot". A carbon monoxide (CO) "hot spot" is a localized concentration of CO that is above the state or federal 1-hour or 8-hour ambient air quality standards (AAQS). Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. Based on the information presented below, a site-specific CO "hot spot" analysis is not needed to determine whether the addition of Project related traffic will contribute to an exceedance of either the state or federal AAQS for CO emissions in the Project area.

The analysis prepared for CO attainment in the South Coast Air Basin by the SCAQMD can be used to assist in evaluating the potential for CO exceedances in the South Coast Air Basin. CO

attainment was thoroughly analyzed as part of the SCAQMD's 2003 Air Quality Management Plan (2003 AQMP) and the Revised 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan). As discussed in the 1992 CO Plan, peak carbon monoxide concentrations in the South Coast Air Basin are generally due to unusual meteorological and topographical conditions, and not due to the impact of particular intersections (2003 AQMP Appendix V, p. V-4-32). Considering the region's unique meteorological conditions and the increasingly stringent CO emissions standards, CO modeling was performed as part of the 1992 CO Plan and subsequent plan updates and air quality management plans.

In the 1992 CO Plan, a CO hot spot analysis was conducted for four busy intersections in Los Angeles at the peak morning and afternoon time periods. The intersections evaluated included: Long Beach Blvd. and Imperial Highway (Lynwood); Wilshire Blvd. and Veteran Ave. (Westwood); Sunset Blvd. and Highland Ave. (Hollywood); and La Cienega Blvd. and Century Blvd. (Inglewood). These analyses did not predict a violation of CO standards. The busiest intersection evaluated in the 1992 CO Plan and subsequent 2003 AQMP was that at Wilshire Blvd. and Veteran Ave., which has a daily traffic volume of approximately 100,000 vehicles per day (2003 AQMP Appendix V, Table 4-7). The Los Angeles County Metropolitan Transportation Authority (MTA) evaluated the LOS in the vicinity of the Wilshire Blvd./Veteran Ave. intersection and found it to be level E at peak morning traffic and Level F at peak afternoon traffic (MTA, Exhibit 2-5 and 2-6).

Considering existing plus Project-related traffic, the highest average daily trips would be 18,300 on Temescal Canyon Road north of Indian Truck Trail, which is lower than the values studied by SCAQMD.<sup>8</sup> Therefore, none of the roadway segments in the vicinity of the proposed Project site would have daily traffic volumes exceeding those at the intersections modeled in the 2003 AQMP, nor would there be any reason unique to the meteorology to conclude that this intersection would yield higher CO concentrations if modeled in detail. Thus, the Project would not result in CO hot spots.

**Conclusions:** Based on the RST analysis for the proposed Project, the short-term construction emissions will not exceed any thresholds for any criteria pollutants. The long-term operation emissions will only exceed the threshold for NO<sub>x</sub>. Therefore, long-term regional air quality impacts are significant and unavoidable prior to implementation of mitigation.

Based on the LST analysis of the proposed Project, neither the short-term construction nor long-term operation of the Project will result in localized air quality impacts to sensitive receptors in the Project vicinity for NO<sub>x</sub>, CO, PM-10 or PM-2.5. Additionally, the proposed Project will not form any CO hot spots in the Project area. For these reasons, localized air quality impacts from short-term construction and long-term operation are considered less than significant.

Nonetheless, because long-term operation of the proposed Project will exceed the SCAQMD threshold for NO<sub>x</sub>, impacts are considered to be **significant and unavoidable before implementation of mitigation.**

**Threshold:** *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality*

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<sup>8</sup> Kunzman, Inc. *Noise Impact Analysis*, Appendix F (based on TIA prepared by Trames Solutions, Inc.; *Temescal Gateway (CUP 3712) Traffic Impact Analysis*, July 23, 2016. (Appendix G)

*standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).*

As previously stated, the portion of the Basin within which the Project is located is designated as nonattainment for PM-10 by the state, as well as nonattainment for ozone, and PM-2.5 under both the state and federal standards (see **Table 5.0-B**). As a result, the SCAQMD is required to develop an Air Quality Management Plan (AQMP) for the Basin to bring the area into attainment for all criteria pollutants.

Ozone is not directly emitted into the atmosphere; rather, it forms via a reaction of VOC and NO<sub>x</sub> in the atmosphere. Therefore, in evaluating this threshold it is also important to consider these emissions and their potential to contribute to ozone pollution in the region even if the region is not in non-attainment for these constituent pollutants.

SCAQMD considers the thresholds for project-specific impacts and cumulative impacts to be the same. Therefore, projects that exceed project-specific significance thresholds are considered by SCAQMD to be cumulatively considerable. Based on SCAQMD's regulatory jurisdiction over regional air quality, it is reasonable to rely on its thresholds to determine whether there is a cumulative air quality impact.

None of the SCAQMD mass daily significance thresholds are exceeded during Project construction (see **Table 5.0-D**, above). As shown in **Table 5.0-E** and **Table 5.0-F**, the mass daily significance threshold for NO<sub>x</sub> would be exceeded during Project operation. In terms of localized air quality impacts, construction of the project would not have a cumulatively considerable impact due to criteria pollutant emissions.

Because the Project would have a cumulatively considerable increase in emissions due to operational NO<sub>x</sub>, the impact is **significant and unavoidable before implementation of mitigation**.

**Threshold:** *Expose sensitive receptors which are located within one mile of the project site to substantial point source emissions.*

The closest sensitive receptors to the Project site are residential houses located approximately 170 meters (558 feet) west of the Project site across Interstate-15 off of Campbell Ranch Road (**Figure 3.0-2 – Aerial Map**).

As discussed above, the short-term LST would not be exceeded as a result of Project construction (see **Table 5.0-G**). The Project does not include stationary sources of emissions or attract mobile sources that may spend long hours idling at the site; accordingly, long-term operational LST analysis is not warranted.

The Project does include a gas station. Gas stations emit benzene, a known human carcinogen. Gas stations are also subject to SCAQMD Rule 461 - Gasoline Transfer and Dispensing.<sup>9</sup> SCAQMD Rule 461 currently has annual throughput reporting requirements. It is designed to regulate gasoline vapor emissions from gasoline transfer and dispensing processes which contain VOCs and toxic air contaminants (TACs) such as benzene, toluene, xylenes, and methyl

<sup>9</sup> <http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-461.pdf?sfvrsn=4>



tertiary butyl ether (MTBE). The rule was initially adopted in 1976 and has been amended a number of times, most recently on April 6, 2012.

Emissions from gasoline transfer and dispensing mainly occur during loading, breathing, refueling, and spillage as described below:

- Loading – Emissions occur when a fuel tanker truck unloads gasoline to the storage tanks. The storage tank vapors, displaced during loading, are emitted through its vent pipe. A pressure/vacuum valve installed on the tank vent pipe significantly reduces these emissions.
- Breathing – Emissions occur through the storage tank vent pipe as a result of temperature and pressure changes in the tank vapor space.
- Refueling – Emissions occur during motor vehicle refueling when gasoline vapors escape through the vehicle/nozzle interface.
- Spillage – Emissions occur from evaporating gasoline that spills during vehicle refueling.

All retail service stations under SCAQMD jurisdiction have Phase I and II vapor recovery systems to control gasoline emissions. Phase I vapor recovery refers to the collection of gasoline vapors displaced from storage tanks when cargo tank trucks make gasoline deliveries. Phase II vapor recovery systems control the vapors displaced from the vehicle fuel tanks during refueling. In addition, all gasoline is stored underground with valves installed on the tank vent pipes to further control gasoline emissions. Out of the toxic compounds emitted from the gasoline stations, only benzene and MTBE have cancer toxicity values. Due to an Executive Order on March 25, 1999, MTBE in California's gasoline was phased-out by December 31, 2003. The operations expected to occur at the proposed gas station are not expected to emit any toxic chemicals in any significant quantity.

However, the gas station will also be subject to SCAQMD Rule 2588 – Air Toxics “Hot Spots” Program.<sup>10</sup> There are six important components to the program as follows:

1. Emissions Reporting – Facilities submit an air toxics inventory through the Annual Emissions Report (AER) Program.
2. Prioritization – From the reported toxic emissions, SCAQMD prioritizes facilities, using a procedure approved by the Governing Board, into three categories: high priority, intermediate priority, and low priority.
3. Risk Assessments – Potentially high-risk facilities must prepare a health risk assessment (HRA).
4. Public Notice – If the risk reported in the HRA exceeds specific thresholds, then the facility is required to provide public notice to the affected community.

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<sup>10</sup> <https://www.aqmd.gov/prdas/AB2588/AB2588.html>

5. Risk Reduction – Facilities with health risks above the action risk levels in Rule 1402 must reduce their risks to the community.
6. Industry-Wide Source (IWS) – Smaller or “IWS” facilities are identified in California H&SC, Section 44323.

The Project also includes restaurants which may use charbroilers to cook meat. Charbroilers emit PM and VOC and chain-driven (conveyorized) charbroilers are regulated under SCAQMD Rule 1138, which requires catalytic oxidizer control devices to minimize emissions. Chain-driven charbroilers installed by any of the Project’s restaurants would be subject to SCAQMD Rule 1138.

Therefore, through compliance with existing rules and regulations described above, the proposed gas station and potential restaurant charbroiler usage is not anticipated to result in impacts to the community.

Additionally, operation of the Project will not result in creation of a CO hot spot. Therefore, the Project will not expose sensitive receptors within one mile of the Project site to substantial point source emissions and impacts to sensitive receptors in the Project vicinity will be **less than significant**.

**Threshold:** *Involve the construction of a sensitive receptor located within one mile of an existing substantial point source emitter.*

Sensitive receptors may include residences, schools, playgrounds, athletic facilities, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes. These uses may attract sectors of the population most likely to be affected by air pollution, as identified by SCAQMD, and may include children, the elderly, and people with cardiovascular and chronic respiratory diseases.

The proposed Project is a commercial development which will be developed in two phases. Plot Plan No. 26290 covering Phase I of the planned development proposes the construction of 6 buildings totaling approximately 61,000 square feet for uses such as fast food, retail, office, and gas station. Therefore, the proposed Project does not involve the construction of a sensitive receptor within one mile of an existing substantial point source emitter and impacts will be **less than significant**.

**Threshold:** *Create objectionable odors affecting a substantial number of people.*

The human nose is the best means of determining the strength of an odor; however, not all people are equally sensitive and they do not always agree about the severity of an odor once it is detected. Therefore, precise documentation of the strength and nature of an odor is generally unavailable.

It is anticipated that the major potential sources of odor from the proposed Project would occur during construction, particularly from construction equipment exhaust. However, this impact would occur in the immediate vicinity of the proposed Project site and short-term. The area immediately surrounding the proposed Project site, east and west is freeway and roadway, and north and south is vacant, and does not contain any sensitive receptors.

Additionally, the California Air Resources Board (CARB) has developed an Air Quality and Land Use Handbook to outline common sources of odor complaints, including: sewage treatment plants, landfills, recycling facilities, and petroleum refineries (CARB 2005, p. 2-2). The Project proposes a variety of commercial uses, which are not included on CARB's list of facilities that are known to be prone to generate odors. Further, odor intensity decreases as distance from the source increases because it allows fresh air to mix with the odors. As stated above, the closest sensitive receptors are located are residential houses located approximately 170 meters (558 feet) west of the Project site across Interstate-15. Therefore, odor-related impacts will be **less than significant**.

### 5.1.7 Proposed Mitigation Measures

The following existing regulation (ER) will be implemented to reduce operational NO<sub>x</sub> emissions (it is still numbered along with other mitigation measures and included in the MMRP for tracking compliance):

**ER AQ 1** Consistent with the 2016 CalGreen Code, the Project shall provide reserved preferential parking spaces for car-share, carpool, and ultra-low or zero emission vehicles; or, provide larger parking spaces that can accommodate vans used for ride-sharing programs and reserve them for vanpools and include adequate passenger waiting/loading areas.

The following mitigation measures will be implemented to reduce operational NO<sub>x</sub> emissions:

**MM AQ 2** The Project shall synchronize signals at the intersection of Temescal Canyon Road and Indian Truck Trail and proposed signals at driveways 2, 3, and 4 along Temescal Canyon Road, which is designated as an arterial.

**MM AQ 3** The Project shall provide circuit and capacity for electric vehicle (EV) charging stations in construction plans and specifications to facilitate future installation of electric vehicle supply equipment (EVSE). As required by the 2016 CalGreen Building Code, 10 percent of the proposed parking spaces at the Project site will require EV charging circuit and capacity and it is assumed that a minimum of 4 areas will contain these spaces.

**MM AQ 4** Where transport refrigeration units (TRUs) are in use, electrical hookups will be installed at all loading and unloading stalls in order to allow TRUs with electric standby capabilities to use them.

**MM AQ 5** The Project shall provide information to future office tenants about the benefits of telecommuting and alternative work schedules that include reducing the number of commute trips and therefore vehicle miles traveled from employees.

### 5.1.8 Summary of Project-Specific Environmental Effects after Mitigation Measures are Implemented

Existing regulation **ER AQ 1** requires the provision of preferential parking spaces for car-share, carpool, and ultra-low or zero emission vehicles or larger parking spaces to accommodate vans for ride-share programs, which is anticipated to reduce vehicle miles traveled in the County by

approximately 0.60% according to the County's Climate Action Plan.<sup>11</sup> Low-emission vehicle usage also reduces NO<sub>x</sub> emissions. Signal synchronization, as required by mitigation measure **MM AQ 2**, will reduce acceleration/deceleration associated with stop-and-go traffic and has the potential to reduce mobile emissions up to 12% according to the CAPCOA Quantification Report.<sup>12</sup> Implementation of mitigation measure **MM AQ 3**, which requires installation of circuit and capacity for electric vehicles at the Project site is anticipated to reduce vehicle emissions by approximately 95% per vehicle replaced by an electric vehicle, according to the County's Climate Action Plan. **MM AQ 4** will eliminate unnecessary idling from refrigerated trucks accessing the Project site. **MM AQ 5** will encourage telecommuting and alternative work schedules which reduce the number of commute trips and therefore vehicle miles traveled from employees.

The implementation of **MM AQ 1** through **MM AQ 5** will reduce the Project's operational NO<sub>x</sub> emissions from mobile sources by encouraging low-emission vehicle use, improving traffic flow, and reducing VMT and unnecessary idling; however, the reductions will not reduce emissions below the operational NO<sub>x</sub> threshold. The measures don't have any specific quantitative reductions and are expected to be very small. Emissions would need to be reduced by 85% to reach the threshold and reduction of these types of vehicle emissions are outside of the project's direct control. Because long-term operation of the proposed Project will exceed the SCAQMD threshold for NO<sub>x</sub>, impacts are considered to be **significant and unavoidable after implementation of mitigation**, and a Statement of Overriding Considerations will be required should the County choose to approve the Project.

### 5.1.9 References

The following references were used in the preparation of this section of the DEIR:

- CARB 2005 California Air Resources Board, *Air Quality and Land Use Handbook: A Community Perspective*, April 2005. (Available at [www.arb.ca.gov/ch/landuse.htm](http://www.arb.ca.gov/ch/landuse.htm), accessed July 14, 2017.)
- CEC 2015 California Energy Commission, *2016 Building Energy Efficiency Standards Adoption Hearing*, June 2015. (Available at: [http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2015-06-10\\_hearing/2015-06-10\\_Adoption\\_Hearing\\_Presentation.pdf](http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2015-06-10_hearing/2015-06-10_Adoption_Hearing_Presentation.pdf), accessed July 14, 2017.)
- County 2015 County of Riverside, *Riverside County General Plan*, 2015. (Available at: <http://planning.rctlma.org/ZoningInformation/GeneralPlan.aspx>, accessed July 14, 2017.)
- MTA Metropolitan Transportation Authority, *2004 Congestion Management Plan for Los Angeles County*, Adopted July 22, 2004. (Available at [http://www.metro.net/images/cmp\\_2004.pdf](http://www.metro.net/images/cmp_2004.pdf), accessed July 14, 2017.)

<sup>11</sup> Riverside County, *Climate Action Plan Appendices*, December 2015. (Available at <http://planning.rctlma.org/ZoningInformation/GeneralPlan/RiversideCountyClimateActionPlan%E2%80%93December2015.aspx>, accessed March 17, 2017.)

<sup>12</sup> California Air Pollution Control Officers Association, *Quantifying Greenhouse Gas Mitigation Measures*, August 2010. (Available at <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>, accessed March 17, 2017.)

- SCAQMD 1992 South Coast Air Quality Management District, *Revision to the 1992 Carbon Monoxide Attainment Plan*, September 1994. (Available at SCAQMD.)
- SCAQMD 1993 South Coast Air Quality Management District, *CEQA Air Quality Handbook*, 1993. (Available at SCAQMD.)
- SCAQMD 2003 South Coast Air Quality Management District, *2003 Air Quality Management Plan*, August 1, 2003. (Available at <http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/2003-aqmp>, accessed on July 14, 2017.)
- SCAQMD 2005 South Coast Air Quality Management District, *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, May 6, 2005. (Available at <http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf>, accessed July 13, 2017.)
- SCAQMD 2008 South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology*, Revised July 2008 (Available at <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf>, accessed July 14, 2017.)
- Trames Trames Solutions Inc., *Temescal Gateway (CUP 3712) Traffic Impact Analysis*, July 2016. (Appendix G)
- USEPA 2016 U.S. Environmental Protection Agency, *Criteria Air Pollutants*. (Available at <https://www.epa.gov/criteria-air-pollutants>, accessed July 13, 2017.)
- WEBB (a) Albert A. Webb Associates, *Revised Air Quality Analysis for the Toscana Village at Temescal Valley Project*, January 2018. (Appendix B)
- WRCC Western Regional Climate Center, *Monthly Climate Summaries*. (Available at <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca2805>, accessed July 13, 2017)

## 5.2 Biological Resources

The focus of this section is to analyze potential impacts related to Biological Resources. Based upon the analysis in the IS/NOP prepared for this Project (Appendix A), all thresholds related to Biological Resources were found to have potentially significant impacts and will be analyzed herein.

The analysis in this section is based on the *Jurisdictional Delineation Report* (JD), the *Habitat Assessment and MSHCP Consistency Analysis Report* (HA), and the *Determination of Biologically Equivalent or Superior Preservation Report* (DBESP) which are included in Appendix C of this EIR. The DBESP has been revised to address Wildlife Agency (California Department of Fish and Wildlife and the US Fish and Wildlife Service) comments but is under-re-review by the Wildlife Agencies for final review and comment. If there are any additional revisions to the DBESP to address Wildlife Agency comments, these would be incorporated into the Final EIR and Mitigation, Monitoring and Reporting Plan accordingly.

## 5.2.1 Setting

### Existing Site Conditions

The project site consists of vacant land that varies in levels of disturbance. The southern two thirds of the project site has historically been subject to grading activities and human disturbance and primarily consists of annual non-native grassland with isolated patches of Riversidean Sage Scrub (RSS) on terrace slopes. The northern half of the project site has been subject to high levels of human disturbance. Historically, the majority of the northern half of the project site was used, based on historic aerial photographs, as a storage yard. This area is no longer utilized as a storage area, but the vegetation has been heavily disturbed. There are several drainage courses that span the Project site. These drainage courses convey storm water runoff from the site and areas upstream of the site and generally to the southwest, to areas downstream of the site and generally northeast, and to Temescal Creek.

### Vegetation/ Habitat Classifications and Sensitive Plant Communities

Nine (9) plant communities were observed within the boundaries of the Project site during the Habitat Assessment and include: annual grassland (10.06 acres); Riversidean sage scrub (7.03 acres); southern cottonwood willow riparian forest (0.28 acre); coast live oak riparian forest (0.03 acre); mulefat scrub (0.1 acre); wetland (0.01 acre); eucalyptus woodland (0.2 acre); disturbed (9.1 acres); and developed (0.3 acre). RSS, southern cottonwood willow riparian forest, coast live oak riparian forest, mulefat scrub, and wetlands are all considered sensitive plant communities.

#### *Riversidean Sage Scrub*

The RSS plant communities were observed on the steep terrace slopes along the western boundary of the Project site, on the steep slopes of the recessed area in the northern third, and on small slopes in the southern two thirds of the project site. The RSS plant community is in varying levels of disturbance and some areas have been restored. This plant community is dominated by California sagebrush (*Artemisia californica*), and California buckwheat (*Eriogonum fasciculatum*). Other plant species found in this plant community include deerweed (*Acmispon glaber*), white sage (*Salvia apiana*), brittlebush (*Encelia farinosa*), goldenbush (*Isocoma menziesii*), and tarragon (*Artemisia dracunculus*).

#### *Southern Cottonwood Willow Riparian Forest*

The southern cottonwood willow riparian forest is found in association with Drainage 4 traversing the project site from west to east in the northern portion of the project site. Also, a small stand is found on the eastern boundary of the project site at northern end of Drainage 1 adjacent to Temescal Canyon Road. This plant community is dominated by cottonwood (*Populus fremontii*), and willow (*Salix* ssp.), with little to no herbaceous understory. The understory was composed of leaf litter, common phacelia (*Phacelia distans*), and other small herbaceous plant species.

#### *Coast Live Oak Riparian Forest*

The northern boundary of the project site narrowly crosses a small north facing slope that is composed of a coast live oak riparian forest. Plant species found in this small area include coast live oak (*Quercus agrifolia*), sycamore (*Plantanus racemosa*), willow, and cottonwood.

### *Coast Live Oak Trees*

There are ten (10) large oak trees found on the southeast corner of the project site adjacent to Temescal Canyon Road. These trees have been tagged and numbered. Since these trees are spread out and do not form a uniform canopy, they are not considered an oak woodland plant community.

### *Mulefat Scrub*

A fragmented mulefat scrub plant community, dominated by mulefat, is found in association with the ephemeral drainage (Drainage 1) found in the southern two thirds of the project site along the eastern boundary. Other plant species observed in this plant community included elderberry (*Sambucus nigra*), as well as the following non-native species: castor bean (*Ricinus communis*), salt cedar (*Tamarix ramosissima*) and tree tobacco (*Nicotiana glauca*).

### *Wetland*

A small wetland occurs within the southern cottonwood willow riparian forest plant community. The wetland occurs at the mouth of a 36-inch culvert that traverses under Interstate 15 and outlets on the Project site. This culvert conveys the flows of the blue line stream. Plant species found within the wetland include cattails (*Typha* spp.), cottonwood, willow, and mulefat.

## **Sensitive Plant Species**

Twenty (20) special status plant species are known to occur in Lake Mathews and Alberhill quadrangles. Based on habitat requirements for specific species, availability and quality of habitats needed by each sensitive plant species, it was determined that the project site has a moderate potential to provide suitable habitat for four sensitive plant species: Munz's onion, a federally endangered and state threatened species, round-leaved filaree, many-stemmed dudleya, and Hammitt's clay-cress. A focused survey was conducted for these sensitive plant species. None of these species were observed during the focused survey and were presumed absent from the Project site.

## **Sensitive Wildlife**

Twenty-three (23) special status wildlife species are known to occur in Lake Mathews and Alberhill quadrangles. Based on habitat requirements for specific species, availability and quality of habitats needed by sensitive wildlife species, it was determined that the project site has a moderate potential to provide suitable habitat for burrowing owl, California gnatcatcher, and least Bell's vireo.

### *Burrowing Owl*

The burrowing owl is currently listed as a California Species of Special Concern. It is a grassland specialist distributed throughout western North America where it occupies open areas with short vegetation and bare ground within shrub, desert, and grassland environments. Burrowing owls use a wide variety of arid and semi-arid environments with well-drained, level to gently-sloping areas characterized by sparse vegetation and bare ground. Burrowing owls are dependent upon the presence of burrowing mammals (such as ground squirrels) whose burrows are used for roosting and nesting. The presence or absence of colonial mammal burrows is often a major

factor that limits the presence or absence of burrowing owls. Where mammal burrows are scarce, burrowing owls have been found occupying man-made cavities, such as buried and non-functioning drain pipes, stand-pipes, and dry culverts. Burrowing mammals may burrow beneath rocks and debris or large, heavy objects such as abandoned cars, concrete blocks, or concrete pads. They also require open vegetation allowing line-of-sight observation of the surrounding habitat to forage as well as watch for predators.

Some of the plant communities on the Project site provide the open vegetation needed by burrowing owl to allow for line-of-sight observation, however no burrowing owls or burrowing owl sign was observed during the Habitat Assessment. Additionally, suitable burrows were observed onsite during the Habitat Assessment that have the potential to provide suitable nesting opportunities for burrowing owl. However, a focused survey was conducted and was negative for burrowing owl. It is assumed that burrowing owl do not occur onsite.

#### *California Gnatcatcher*

California gnatcatcher (CAGN), federally listed as threatened, is a species with restricted habitat requirements, being an obligate resident of sage scrub habitats that are dominated by California sagebrush (*Artemisia californica*). This species generally occurs below 750 feet elevation in coastal regions and below 1,500 feet inland. It ranges from the Ventura County south to San Diego County and northern Baja California and it is less common in sage scrub with a high percentage of tall shrubs. It prefers habitat with more low-growing vegetation. CAGN breed between mid-February and the end of August, with the peak of activity from mid-March to mid-May. Population estimates indicate that there are approximately 1,600 to 2,290 pairs of CAGN remaining. The RSS plant community found on the project site is disturbed and only provides marginally suitable habitat for CAGN.

#### **Migratory Nesting Birds and Raptors**

The plant communities within and adjacent to the Project site, have the potential to provide suitable nesting opportunities for raptors and passerines. The Habitat Assessment was conducted at the end of the avian breeding season, and as a result no actively breeding bird species or birds displaying nesting behaviors were observed. However, a large nest, presumably a raptor nest, was observed in one of the large eucalyptus trees in the eucalyptus woodland. No birds were observed in or around this nest and no recent sign (i.e., white wash, pellets, or feathers) were observed below the nest.

#### **Jurisdictional Wetlands and Waters**

Seven (7) drainages with potentially jurisdictional features occur within the boundaries of the Project site. In total, the Jurisdictional Delineation Report identified 0.20-acre (2,157 linear feet) of "waters of the U.S." and "waters of the State" subject to US Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB) jurisdiction. Of the 0.20-acre, 0.01-acre was determined to be a wetland. It was determined that 0.19-acre (2,157 linear feet) of potential "jurisdictional streambed" subject to CDFW jurisdiction, including 0.42-acre of riparian-vegetated streambed (inclusive of the 0.01-acre wetland) within the seven (7) jurisdictional features (Drainage 1 thru Drainage 6 and Wetland 1).

#### *Drainage 1 (D1)*



Drainage 1 is an unnamed, ephemeral drainage feature located on the southern portion of the project site. Drainage 1 generally runs in a southeast to northwest direction along the eastern boundary of the project site and eventually flows under Temescal Canyon Road before discharging into Temescal Creek. Substrate within Drainage 1 is loose and composed of fine sediment and gravel. No surface water was present within Drainage 1; however, the following indicators of surface hydrology were observed: scour; sediment deposits; and shelving. Drainage 1 measures approximately 947 feet in length and ranges from 1 to 6 feet in width. Plant species occurring within Drainage 1 consist of mulefat (*Baccharis salicifolia*), cottonwood (*Populus fremontii*), mustard (*Hirschfeldia incana*), saltcedar (*Tamarix ramosissima*), and non-native grasses.

#### *Drainage 2 (D2)*

Drainage 2 is an unnamed, ephemeral drainage feature located on the southern portion of the project site. Drainage 2 generally runs in a southwest to northeast direction from an existing 24-inch culvert located adjacent to I-15. Only during significant storm events, flows within Drainage 2 are directed northeast and eventually discharged into Drainage 1. Substrate within Drainage 2 is loose and composed of fine sediment and gravel. No surface water was present within Drainage 2; however, the following indicators of surface hydrology were observed: scour; and sediment deposits. Drainage 2 measures approximately 351 feet in length and ranges from 1 to 2 feet in width. Plant species occurring within Drainage 2 include mustard, mulefat, buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), and non-native grasses.

#### *Drainage 3 (D3)*

Drainage 3 is an unnamed, ephemeral drainage feature located on the central portion of the project site. Drainage 3 generally runs in a southwest to northeast direction off the project site and under Temescal Canyon Road before discharging into Temescal Creek. Substrate within Drainage 3 is loose and composed of fine sediment and gravel. No surface water was present within Drainage 3; however, the following indicators of surface hydrology were observed: scour; and sediment deposits. Drainage 3 measures approximately 107 feet in length and 2 feet in width. Plant species occurring within Drainage 3 consisted primarily of mustard and non-native grasses. No riparian plant species occur within Drainage 3.

#### *Drainage 4 (D4)*

Drainage 4 is an unnamed, intermittent drainage feature located on the northern portion of the project site. Drainage 4 generally runs west to east across the project site from an existing 36-inch culvert and flows under Temescal Canyon Road before discharging into Temescal Creek located to the east of the project site. Surface water ranging from 6 to 12 inches in depth was present within Drainage 4 and substrate consists of fine sediment and gravel. Drainage 4 measures approximately 236 feet in length and ranges from 3 to 16 feet in width based on the following indicators of surface hydrology: scour, shelving, sediment deposits, and wrack lines. Plant species occurring within Drainage 5 include cottonwood, mulefat, black willow (*Salix gooddingii*), cattail (*Typha* spp.), western ragweed (*Ambrosia psilostachya*), and Peruvian peppertree (*Schinus molle*).

#### *Drainage 5 (D5)*

Drainage 5 is an unnamed, ephemeral drainage feature located on the northern portion of the project site. Drainage 5 generally runs northwest to southeast and is tributary to Drainage 4. No surface water was observed within Drainage 5 and substrate is loose and consists of fine sediment and gravel. Drainage 5 measures approximately 127 feet in length and ranges from 1 to 14 feet in width. Indicators of surface hydrology included scour, shelving, and sediment deposits. Plant species occurring within Drainage 5 include mulefat, cottonwood, western ragweed, mustard, tree tobacco (*Nicotiana glauca*), and non-native grasses.

#### *Drainage 6 (D6)*

Drainage 6 is an unnamed, ephemeral drainage feature that flows across the northern portion of the project site from an existing 36-inch culvert adjacent to I-15. Drainage 6 generally runs in a south to north direction and eventually discharges into Temescal Creek located to the north of the project site. Substrate within Drainage 6 consists of fine sediment and gravel and portions of Drainage 6 are lined with loose riprap associated with past development of the project site. No surface water was present within Drainage 6; however, the following indicators of surface hydrology were observed: scour; and sediment deposits. Drainage 6 measures approximately 389 feet in length and ranges from 2 to 20 feet in width. Plant species occurring within natural portions of Drainage 6 include California buckwheat, California sagebrush, coast live oak (*Quercus agrifolia*), mustard, and non-native grasses. Riprap lined portions of Drainage 6 are un-vegetated.

#### *Wetland 1 (W1)*

Wetland 1 is located in line with Drainage 4 and extends northeast from a 36-inch culvert on the northern portion of the project site. Primary indicators of wetland hydrology were observed within Wetland 1 and included surface water, high water table, and saturation. Surface water was present within the southwest portion of Wetland 1 and ranged from 2 to 12 inches in depth. Wetland 1 is approximately 0.01-acres and measures 35 feet in length and ranges from 3 to 10 feet in width. Plant species occurring within Wetland 1 include black willow, cottonwood, mulefat, Peruvian peppertree, and cattail. Three soil pits were dug within Wetland 1 and exhibited hydric soil characteristics.

### **Riparian/Riverine Resources**

There were three (3) riparian plant communities found on the project site: southern cottonwood willow riparian forest; coast live oak riparian forest; and mulefat scrub. The riparian vegetation (southern cottonwood willow riparian forest associated with Drainage 4 and the coast live oak riparian forest plant communities found on the northern boundary of the project site) has the potential to provide suitable habitat for LBVI.

### **5.2.2 Related Regulations**

The biological resources on the Project site are subject to federal, state, and local regulations associated with a number of regulatory programs. These programs often overlap and were developed to protect natural resources, including: state and federally listed plants and animals; aquatic resources including rivers and creeks, ephemeral streambeds, wetlands, and areas of riparian habitat; other special-status species which are not listed as threatened or endangered by the state or federal governments; and other special-status vegetation communities. Below is

an overview of the federal, state, and regional laws, regulations, and requirements that would apply to the proposed project.

### 5.2.2.1 Federal Regulations

#### *Federal Endangered Species Act (16 U.S.C. §1531 et seq.)*

The Federal Endangered Species Act of 1973 (ESA) defines an endangered species as “any species which is in danger of extinction throughout all or a significant portion of its range.” A threatened species is defined as “any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” Under the provisions of Section 9(a)(1)(B) of the ESA, it is unlawful to “take” any listed species. “Take” is defined in Section 3(18) of the ESA as the “... harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Further, the US Fish and Wildlife Service (USFWS), through regulation, has interpreted the terms “harm” and “harass” to include certain types of habitat modification that result in injury to, or death of species as forms of “take.” These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission for an action that could affect a federally listed plant and animal species, the property owner is required to consult with USFWS prior to implementation of the action and the approval of any required permits for “take” of the affected species.

#### *Migratory Bird Treaty Act (16 U.S.C. §§ 703-712)*

The Migratory Bird Treaty Act (MBTA) is an international treaty that makes it unlawful to take, possess, buy, sell purchase or barter any migratory bird listed in Title 50 Code of Federal Regulations (CFR) §10.13, including feathers or other parts, nets, eggs or products, except as allowed by implementing regulations. The MBTA requires that disturbance of active nesting territories be reduced or eliminated during critical phases of the nesting cycle (February 1 through August 31, annually). Disturbance that causes nest abandonment and/or loss of reproductive effort or the loss of habitat upon which the birds depend could be considered “take” and constitute a violation of the MBTA.

#### *Clean Water Act, Section 401 (33 U.S.C. §1251 § 401)*

Section 401 of the Clean Water Act (CWA) requires that “any applicant for a Federal permit for activities that involve a discharge to waters of the State, shall provide the Federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions of the Federal Clean Water Act.”

Accordingly, before the USACE will issue a Section 404 permit, project applicants must apply for and receive Section 401 water quality certification from the designated RWQCB. A complete application for Section 401 certification will include a detailed Water Quality Management Plan that will address the key water quality features of the project to ensure the integrity of water quality in the area during Project construction and operation.

### 5.2.2.2 State Regulations

#### *California Endangered Species Act (Fish & Game Code §2050 et. seq.)*

California's Endangered Species Act (CESA) defines an endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." The State defines a threatened species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a threatened species." Candidate species are defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list." Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the Federal Endangered Species Act (FESA), CESA does not list invertebrate species.

Article 3, Sections 2080 through 2085, of the CESA addresses the taking of threatened, endangered, or candidate species by stating "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided." Under the CESA, "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow "take" require permits or memoranda of understanding and can be authorized for endangered species, threatened species, or candidate species for scientific, educational, or management purposes and for take incidental to otherwise lawful activities. Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

*Streambed Alteration Program (Fish & Game Code §1600 et. seq.)*

Section 1602 of the California Fish and Game Code requires any entity that proposes to substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank or, any river stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into a river, stream, or lake to notify the CDFW of the proposed project. In the course of the notification process, the CDFW will review the proposed project as it affects streambed habitats within the project area. The CDFW may then place conditions on the Section 1602 clearance to avoid, minimize, and/or mitigate effects within CDFW jurisdictional limits.

*California Department of Fish and Wildlife, Fish & Game Code § 3500 et. seq. & 3800*

Division 4, Part 2 of the California Fish & Game Code (§3500 et seq.), establishes provisions for the protection of native birds, including birds in the orders of Falconiformes or Strigiformes (birds-of-prey), as well as non-game birds. Pursuant to the California Fish and Game Code, it is unlawful to take, possess, or destroy protected birds or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.

*California Native Plant Society*

The California Native Plant Society (CNPS) is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in the state. CNPS has compiled an inventory of information focusing on geographic distribution and qualitative characterization of rare, threatened, or endangered vascular plant species of California. It also provides information on their population and viability. The inventory list serves as the candidate list for threatened and endangered species identified by CDFW as well as a mechanism for tracking the status of plants in California. The CNPS listings include an extension code or "threat ranks" that are added as a decimal code after the CNPS listing (e.g., List 1B.1).

### 5.2.2.3 Regional Regulations

#### *Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)*

The Project site is located within the Elsinore Area Plan of the Western Riverside County MSHCP, which is a comprehensive habitat conservation/planning program for Western Riverside County. The intent of the MSHCP is to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. The MSHCP provides coverage (including take authorization for listed species) for special-status plant and animal species, as well as mitigation for impacts to special-status species and associated native habitats.

Through agreements with the USFWS and CDFW, the MSHCP designates 146 special-status animal and plant species as Covered Species, of which the majority have no project specific survey/conservation requirements. The MSHCP provides mitigation for project-specific impacts to these species for Projects that are compliant/consistent with MSHCP requirements, such that the impacts are reduced to below a level of significance pursuant to CEQA. The Covered Species that are not yet adequately conserved have additional requirements for these species to ultimately be considered "adequately conserved." A number of these species have survey requirements based on a project's occurrence within a designated MSHCP survey area and/or based on the presence of suitable habitat. These include Narrow Endemic Plant Species (MSHCP Volume I, Section 6.1.3), as identified by the Narrow Endemic Plant Species Survey Areas (NEPSSA); Criteria Area Plant Species (MSHCP Volume I, Section 6.3.2) identified by the Criteria Area Plant Species Survey Areas (CAPSSA); animal species (burrowing owl, mammals, amphibians) identified by survey areas (MSHCP Volume I, Section 6.3.2); and species associated with riparian/riverine areas and vernal pool habitats, i.e., least Bell's vireo, southwestern willow flycatcher, western yellow-billed cuckoo, and three species of listed fairy shrimp (MSHCP Volume I, Section 6.1.2). An additional 28 species (MSHCP Volume I, Table 9.3) not yet adequately conserved have species-specific objectives for the species to become adequately conserved. However, these species do not have project-specific survey requirements.

### 5.2.2.4 Local Regulations

#### *Riverside County Tree Policies, Plans, Ordinances, Guidance*

Riverside County has an existing policy (County Policy 26) for tree removal on or adjacent to County road right-of-way (ROW) that was last revised in 1988. This policy is not exclusive to oak trees, it is applicable to all trees within or adjacent to the ROW. Under this policy, trees may be removed if the trees are determined to be dead or diseased, or pose a danger to traffic or private property (County of Riverside 1986). Furthermore, trees may be considered for removal if they create an unsafe condition, such as obstructing the view for vehicles or conflict with construction

work or major maintenance project, or if removal is requested by an adjacent property owner. Pursuant to this policy, the removal of trees is subject to the approval of the District Maintenance Supervisor.

#### *Elsinore Area Plan*

Elsinore Area Plan has an existing policy (ELAP 15.1) that protects oak trees to preserve the character and unique natural habitat in the area. The policy protects viable oak woodlands through adherence to the Oak Tree Management Guidelines adopted by Riverside County.

#### *Oak Tree Management Guidelines*

The County's Oak Tree Management Guidelines, approved on March 2, 1993 and revised in September 1999, provides guidance that maximizes preservation and minimizes impacts to oak trees through project design for proposed private development. These guidelines require that the project preserve the oak trees or a Heritage Tree Preservation and Protection Plan be in place during the grading and construction activities.

#### *Temescal Oak Tree Maintenance Plan Report*

The Riverside County Transportation Department implemented this plan to minimize impacts to oak trees along portions of Temescal Canyon Road and Ontario Avenue rights-of-way while ensuring the oak trees do not pose a potential hazard to the adjacent roadways. The Temescal Oak Tree Maintenance Plan Report gives specific recommendations for the maintenance of each of the oak trees within the study area that comply with the existing Riverside County Oak Tree Management Guidelines.

### **5.2.3 Comments Received in Response to NOP**

In response to the NOP, one comment letter from CDFW was received related to biological resources.

### **5.2.4 Project Design Considerations**

Under the MSHCP, areas that affect riparian, wetland, or vernal pool habitat require a *Determination of Biologically Equivalent or Superior Preservation (DBESP)* analysis. The goal of the DBESP process is to determine if the project has, in fact, provided an alternative that results in biologically equivalent or superior preservation. The first priority for riparian/riverine habitats that contribute to the biological values of the MSHCP preserve is avoidance of direct impacts, then minimization of any remaining direct impacts. The project has incorporated the following design considerations to minimize and avoid impacts to riverine and riparian habitat.

#### **Avoidance of Direct Impacts**

Project activities will avoid 0.07 acre of riverine habitat and 0.03 acre of riparian habitat in the northern most portion of the project site.

#### **Minimization of Direct and Indirect Impacts**

All of the onsite drainage features are erosional and man-made features, created to convey storm water runoff from I-15 and Temescal Road to Temescal Creek. Development of the site will require that these flood control channels be replaced by constructed culverts and concrete channels that will have comparable conveyance capabilities and will convey the storm waters from the project site to two existing natural drainages that discharge into Temescal Creek. The replacement culverts and channels will be designed to minimize loss of function and value of resources onsite and offsite.

Existing culverts in the adjacent Caltrans ROW that convey stormwater runoff from the I-15 freeway to the project site will be conveyed through the project site via underground storm drain pipelines to an open earthen trapezoidal channel/swale, approximately 680 feet long and 18 feet wide, that runs along the frontage of the Project site and Temescal Canyon Road, and then connects to an existing corrugated metal pipe (CMP) culvert that crosses under Temescal Canyon Road and outlets on the north side of the road.

Permanent flood control infrastructure in the Phase II area that will be constructed during Phase I includes one small sediment basin (0.04 acre), a meandering low flow channel/riparian mitigation area, and a bioretention facility/basin along the frontage of Temescal Canyon Road. The bioretention facility located at the northern part of the project site along Temescal Canyon Road will accept and treat stormwater runoff from Temescal Canyon Road. The bioretention facility is approximately 0.12 acre in size. The sediment basin will collect stormwater runoff and sediment from the northwest corner of the site. This sediment basin will overflow to the meandering low flow channel/riparian mitigation area. The meandering low flow channel will be an earthen trapezoidal channel, approximately 12 feet wide and will have an area of approximately 5,500 square feet or approximately 0.13 acre. Rip-rap protection of this channel is needed where the channel has sharp turns and for drop structures to minimize erosion and sedimentation downstream. The combined areas of rip-rap total approximately 1,600 square feet.

### **Minimization Measures to Reduce Indirect Impacts**

The Urban/Wildlife Interface Guidelines, as discussed below, have been incorporated into the project design to ensure that all indirect project-related impacts to offsite riparian/riverine habitat, including impacts from toxics, lighting, noise, invasive plant species, barriers, and grading/land development, are avoided or minimized to the greatest extent feasible.

#### *Fugitive Dust*

During soil excavation, grading, or other subsurface disturbance within 100 feet of conserved riparian/riverine habitat onsite, the construction superintendent shall supervise provision and maintenance of all standard dust control best management practices (BMPs) to reduce fugitive dust emissions, including but not limited to the following actions:

- Water any exposed soil areas a minimum of twice per day, or as allowed under any imposed drought restrictions. On windy days or when fugitive dust can be observed leaving the construction site, additional water shall be applied at a frequency to be determined by the on-site construction superintendent;
- Pave, periodically water, or apply chemical stabilizer to construction access/ egress points;

- Minimize the amount of area disturbed by clearing, grading, earthmoving, or excavation operations at all times;
- Operate all vehicles on graded areas at speeds less than 15 miles per hour; and
- Cover all stockpiles that will not be utilized within three days with plastic or equivalent material, to be determined by the onsite construction superintendent, or spray them with a non-toxic chemical stabilizer.

#### *Noise*

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

- Properly outfit and maintain construction equipment with manufacturer-recommended noise-reduction devices to minimize construction-generated noise;
- Operate all diesel equipment with closed engine doors and equip with factory recommended mufflers;
- Use electrical power, when feasible, to operate air compressors and similar power tools;
- Employ additional noise attenuation techniques, as needed, to reduce excessive noise levels within conserved Riparian/ Riverine Habitat onsite, such as placement of temporary sound barriers or sound blankets at the top of slope adjacent to these areas; and Locate construction staging areas at least 100 feet from Drainage 4.

#### *Lighting*

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

#### *Runoff- Toxics*

To address potential short-term impacts to water quality within the onsite drainages from construction runoff that may carry storm water pollutants, a Storm Water Pollution Prevention Program (SWPPP) shall be implemented by the construction contractor as required by the California General Construction Storm Water Permit pursuant to State Water Resources Control Board (SWRCB) requirements. The SWPPP will identify BMPs related to the control of toxic substances, including construction fuels, oils, and other liquids. These BMPs will be implemented by the applicant's contractor prior to the start of any ground clearing activity, will be subject to periodic inspections by the County, and will be maintained throughout the construction period and remain in place until all landscape and permanent BMPs are in place. BMPs will be monitored and repaired if necessary to ensure maximum erosion, sediment, and pollution control. Measures to reduce erosion and sediment and protect water quality shall be included in contractor specifications and include, but not be limited to, the following:



- Permittee will prohibit the use of erosion control materials potentially harmful to fish and wildlife species, such as mono-filament netting (erosion control matting) or similar material, within and adjacent to CDFW jurisdictional areas;
- All fiber rolls, straw waddles, and/or hay bales utilized within and adjacent to the project site will be free of non-native plant materials;
- Permittee will comply with all litter and pollution laws. All contractors, subcontractors, and employees shall also obey these laws and it shall be the responsibility of Permittee to ensure compliance;
- Permittee will not allow water containing mud, silt, or other pollutants from grading, aggregate washing, or other activities to enter a lake, streambed, or flowing stream or be placed in locations that may be subjected to high storm flows;
- Spoil sites will not be located within a lake, streambed, or flowing stream or locations that may be subjected to high storm flows, where spoil shall be washed back into a lake, streambed, or flowing stream where it will impact streambed habitat and aquatic or riparian vegetation;
- Raw cement/concrete or washings thereof, asphalt, paint, or other coating material, oil or other petroleum products, or any other substances which could be hazardous to fish and wildlife resources resulting from project related activities will be prevented from contaminating the soil and/or entering the waters of the State. These materials, placed within or where they may enter a lake, streambed, or flowing stream by Permittee or any party working under contract or with the permission of Permittee, will be removed immediately;
- No equipment maintenance will be done within or near any lake, streambed, or flowing stream where petroleum products or other pollutants from the equipment may enter these areas under any flow; and No broken concrete, cement, debris, soil, silt, sand, bark, slash, sawdust, rubbish, or washings thereof, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature will be allowed to enter into or be placed where it may be washed by rainfall or runoff into waters of the State. When operations are completed, any excess materials or debris will be removed from the work area. No rubbish will be deposited within 150 feet of the high-water mark of any lake, streambed, or flowing stream. Preservation will occur only within a newly created onsite conservation area.

#### *Accidental Encroachments During Construction*

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

- Construction worker training will be provided by a qualified biologist at the first preconstruction meeting;

- Exclusionary fencing and signs will be erected near the top of slope adjacent to conserved riparian/riverine habitat to prevent accidental/unauthorized intrusions during construction;
- No equipment will be operated in areas of flowing water;
- Construction access and staging areas for storage of materials and heavy equipment, and for fueling, cleaning, or maintenance of construction vehicles or equipment, will be prohibited within 20 feet from the top of slope adjacent to conserved riparian/riverine habitat; and a qualified biologist will be onsite during initial clearing/grubbing, grading, and/or construction activities within the riparian/riverine habitat within Drainage 6 to be impacted, or within 100 feet of the habitat to be avoided, and shall periodically monitor these activities to ensure they do not exceed the fenced construction limits.

#### *Post-Construction Human Disturbances*

The project will incorporate special edge treatments designed to minimize edge effects by providing a safe transition between developed areas and conserved riparian/riverine habitat, and which would be compatible with project operation and the protection and sustainability of conserved areas. Special edge treatments will include native landscaping on re-contoured slopes as part of the proposed 1.7-acre onsite conservation areas which includes the creation of wetland and riparian/riverine habitat, as well as fencing/signage near the top of slope adjacent to the proposed onsite conservation area to prevent unauthorized public access, vandalism, illegal dumping, and other adverse human disturbances.

### **5.2.5 Thresholds of Significance**

The Riverside County Planning Department has not established local CEQA significance thresholds as described in Section 15064.7 of the State CEQA Guidelines. The Riverside County Planning Department generally utilizes the CEQA significance thresholds in Appendix G ("Environmental Checklist") of the State CEQA Guidelines. The Environmental Checklist prepared by the County for the Project (see Appendix A of this document) indicates that impacts related the Toscana Village at Temescal Valley Project may be considered potentially significant if 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;
- Have a substantial adverse effect, either directly or through habitat modifications, on any endangered, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12);
- 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 Wildlife or U. S. Wildlife Service;

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites; and/or,
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or 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; or
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

### **5.2.6 Environmental Impacts before Mitigation**

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

The Project site is located within the Western Riverside County MSHCP, which is the only HCP/NCCP or other conservation plan in the Project area.

#### **Reserve Assembly**

The Project site is located within Estelle Mountain/Indian Canyon Subunit of the Elsinore Area Plan of the Western Riverside County MSHCP. The proposed project is primarily located in Criteria Cell 3448 with portions of the project site extending into Criteria Cells 3349 and 3350. These cells contribute to the assembly of the Proposed Extension of Existing Core 2 which consists of habitat associated with Temescal Canyon Wash and adjacent upland areas. The primary goal of this Cell group focuses on riparian scrub, woodland, forest, and Riversidean alluvial fan sage scrub habitat associated with Temescal Wash and provides habitat and movement for listed species. A Habitat Acquisition and Negotiation Strategy (HANS) application was submitted to the Riverside County Planning Department for this Project in February 2012. It was determined by the Riverside County Planning Department on February 16, 2012, that the proposed Project site is not within proposed conservation for the MSHCP. Therefore, no portion of the Project site is required to be conserved for MSHCP Reserve Assembly.

#### **Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools (Section 6.1.2)**

Section 6.1.2 of the MSHCP outlines the process through which protection of riparian/riverine areas and vernal pools would occur. Projects that result in unavoidable impacts to riparian/riverine or vernal pool resources require a Determination of Biologically Equivalent or Superior Preservation (DBESP) to be made by Riverside County as the Permittee to ensure replacement of any lost functions and values of habitat as it relates to Covered Species. Conservation of these areas is intended to protect habitat that is essential to a number of listed, water-dependent amphibians, birds, fish, invertebrates, and plants. As required by the MSHCP, a DBESP analysis for the project site has been prepared to address expected impacts to riverine,

riparian and wetland habitats. Therefore, through compliance with the MSHCP impacts to Covered Species and riparian/riverine/wetland habitat impacts would be less than significant.

The riparian vegetation (southern cottonwood willow riparian forest associated with Drainage 4 and the coast live oak riparian forest plant communities found on the northern boundary of the project site) has the potential to provide suitable habitat for least Bell's vireo. The Project site does not contain suitable habitat for southwestern willow flycatcher, western yellow-billed cuckoo, or fairy shrimp (Riversidean, Santa Rosa Plateau, or vernal pool fairy shrimp). In accordance with Section 6.1.2 of the MSHCP, if a Project site supports suitable habitat for any of these species, a focused survey, conducted by a qualified biologist in accordance with accepted protocol, is required.

Least Bell's vireo are known to nest within Temescal Creek, which is located approximately 800-feet from the riparian habitat on the Project site. Least Bell's vireo is an edge species and could migrate onto the Project site. In accordance with the USFWS least Bell's vireo survey guidelines, all riparian areas and any other potential vireo habitats within the project boundaries were surveyed. No least Bell's vireo were observed during these surveys and it is assumed to be absent from the project site.

As outlined in the DBESP report prepared for the Project, the six earthen erosional drainages found on the project were created to convey storm water runoff from I-15 and Temescal Road to Temescal Creek. This existing conveyance system of created earthen channels will be replaced with the construction of a generally underground storm drain system that will convey storm water runoff from the I-15 Freeway and the Project site to Temescal Creek via the enhanced riverine/riparian/wetland feature. Direct impacts include the loss of 0.12 acres of riverine habitat, 0.38 acres of riparian habitat and 0.01 acres of wetland habitat will be offset at a ratio of 2:1 for riverine habitat, 3:1 for riparian habitat and 4:1 for wetland habitat. This will be achieved by the enhancement of the above referenced riverine/riparian/wetland feature. The enhanced drainage feature totals 1.7 acres in extent and will meet the above reference ratios for enhancement and replacement value. The enhanced riverine/riparian/wetland feature will include 1.49 acres of an oak woodland habitat that will include coyote bush (*Baccharis pillularus*), western sycamore (*Platanus racemosa*), Fremont cottonwood (*Populus fremontii*), arroyo willow (*Salix lasiolepis*), and coast live oak (*Quercus agrifolia*). The 0.22 acres of conservation will be composed of Fremont cottonwood. Slopes within the 1.71-restoration area will be seeded with seed mix including: deer weed, Pershing's lotus (*Acmispon glaber*), bent grass, mugwort, mulefat, prickly popcorn flower, fascicied tarweed, giant wild rye, brittlebush, ashyleaf buckwheat, common yarrow, and six week fescue.

Besides water conveyance this northern created feature will also provide wetlands habitat, natural water treatment, wildlife habitat for riparian species, including least Bell's vireo, and movement opportunities between Temescal Creek and Santa Ana Mountains for more mobile species able to cross under the I-15 Freeway at Temescal Canyon Road.

In addition, the applicant will prepare a Habitat Mitigation and Monitoring Plan (HMMP) as part of the required permit applications (404, 401 and 1602) that will define performance standards and a five-year monitoring plan for the onsite enhancement and revegetation efforts for the enhanced riverine/riparian/wetland feature. The applicant will also prepare and fund a long-term management plan (LTMP) for in perpetuity management of the onsite conservation area once the performance standards are met. Both plans (HMMP and LTMP) will be submitted to the

County of Riverside and the RCA as well as the regulatory agencies for review and approval prior to implementation.

With implementation of the above project design features and the proposed minimization and mitigation measures, the Project would represent a biologically superior alternative to the existing pre-project conditions and a net increase in the function and value of wetland and riparian/riverine habitat within western Riverside County. Therefore, species associated with riparian, riverine, and vernal pools are not expected to be impacted by the Project and the Project is in compliance with Section 6.1.2 of the MSHCP.

### **Protection of Narrow Endemic Plant Species (Section 6.1.3)**

The MSHCP requires habitat assessments for Narrow Endemic and Criteria Area plant species for the Project site, and focused surveys if suitable habitat is present for the following: Munz's onion, San Diego ambrosia (*Ambrosia pumila*), slender-horned spineflower (*Dodecahema leptoceras*), many-stemmed dudleya, spreading navarretia (*Navarretia fossalis*), California orcutt grass (*Orcuttia californica*), San Miguel savory (*Clinopodium chandleri*), Hammitt's clay-cress, and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*), thread-leaved brodiaea (*Brodiaea filifolia*), Davidson's saltscale (*Atriplex serenana* var.  *davidsonii*), Parish' brittlescale (*Atriplex parishii*), smooth tarplant (*Centromadia pungens* ssp.  *laevis*), round-leaved filaree, Coulter's goldfields (*Lasthenia glabrata* ssp.  *coulteri*), and little mousetail (*Myosurus minimus* ssp.  *apus*).

Based on habitat requirements for specific species, availability and quality of habitats needed by sensitive plant species, it was determined that the project site does not provide suitable habitat for Narrow Endemic Plant species San Diego ambrosia, slender-horned spineflower, spreading navarretia, California orcutt grass, San Miguel savory and Wright's trichocoronis or Criteria Area Plant species thread-leaved brodiaea, Davidson's saltscale, Parish' brittlescale, smooth tarplant, Coulter's goldfields, and little mousetail.

Based on the type and condition of the soils and plant communities found on the Project site, it was determined that the Project site has a low to moderate potential to provide suitable habitat for Munz's onion, many-stemmed dudleya, Hammitt's clay-cress, and round leaved filaree. A focused survey was conducted for these species and was negative. Therefore, Narrow Endemic and Criteria Area plant species are not expected to be impacted by the Project and the Project is consistent with Section 6.1.3.

### **Guidelines Pertaining to the Urban/ Wildlands Interface (Section 6.1.4)**

The following Project specific design features were developed to ensure that all indirect project-related impacts, including those from toxics, lighting, noise, invasive plant species, barriers, and grading/land development, to offsite riparian/riverine habitat associated with Temescal Wash are avoided or minimized to the greatest extent feasible. The following design features have also been included as Mitigation Measures **MM BIO-1** through **MM BIO-5** of this EIR.

#### *Fugitive Dust*

During soil excavation, grading, or other subsurface disturbance within 100 feet of conserved riparian/riverine habitat onsite, the construction superintendent shall supervise provision and

maintenance of all standard dust control best management practices (BMPs) to reduce fugitive dust emissions, including but not limited to the following actions:

- Water any exposed soil areas a minimum of twice per day, or as allowed under any imposed drought restrictions. On windy days or when fugitive dust can be observed leaving the construction site, additional water shall be applied at a frequency to be determined by the on-site construction superintendent;
- Pave, periodically water, or apply chemical stabilizer to construction access/ egress points;
- Minimize the amount of area disturbed by clearing, grading, earthmoving, or excavation operations at all times;
- Operate all vehicles on graded areas at speeds less than 15 miles per hour; and
- Cover all stockpiles that will not be utilized within three days with plastic or equivalent material, to be determined by the onsite construction superintendent, or spray them with a non-toxic chemical stabilizer.

#### *Noise*

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

- Properly outfit and maintain construction equipment with manufacturer-recommended noise-reduction devices to minimize construction-generated noise;
- Operate all diesel equipment with closed engine doors and equip with factory recommended mufflers;
- Use electrical power, when feasible, to operate air compressors and similar power tools;
- Employ additional noise attenuation techniques, as needed, to reduce excessive noise levels within conserved Riparian/ Riverine Habitat onsite, such as placement of temporary sound barriers or sound blankets at the top of slope adjacent to these areas; and
- Locate construction staging areas at least 100 feet from Drainage 4.

#### *Lighting*

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

#### *Runoff- Toxics*

To address potential short-term impacts to water quality within the onsite drainages from construction runoff that may carry storm water pollutants, a Storm Water Pollution Prevention Program (SWPPP) is required and shall be implemented by the construction contractor as required by the California General Construction Storm Water Permit pursuant to State Water Resources Control Board (SWRCB) requirements. The SWPPP will identify BMPs related to the control of toxic substances, including construction fuels, oils, and other liquids. These BMPs will be implemented by the applicant's contractor prior to the start of any ground clearing activity, will be subject to periodic inspections by the County, and will be maintained throughout the construction period and remain in place until all landscape and permanent BMPs are in place. BMPs will be monitored and repaired if necessary to ensure maximum erosion, sediment, and pollution control. Measures to reduce erosion and sediment and protect water quality shall be included in contractor specifications and include, but not be limited to, the following:

- Permittee will prohibit the use of erosion control materials potentially harmful to fish and wildlife species, such as mono-filament netting (erosion control matting) or similar material, within and adjacent to CDFW jurisdictional areas;
- All fiber roles, straw waddles, and/or hay bales utilized within and adjacent to the project site will be free of non-native plant materials;
- Permittee will comply with all litter and pollution laws. All contractors, subcontractors, and employees shall also obey these laws and it shall be the responsibility of Permittee to ensure compliance;
- Permittee will not allow water containing mud, silt, or other pollutants from grading, aggregate washing, or other activities to enter a lake, streambed, or flowing stream or be placed in locations that may be subjected to high storm flows;
- Spoil sites will not be located within a lake, streambed, or flowing stream or locations that may be subjected to high storm flows, where spoil shall be washed back into a lake, streambed, or flowing stream where it will impact streambed habitat and aquatic or riparian vegetation;
- Raw cement/concrete or washings thereof, asphalt, paint, or other coating material, oil or other petroleum products, or any other substances which could be hazardous to fish and wildlife resources resulting from project related activities will be prevented from contaminating the soil and/or entering the waters of the State. These materials, placed within or where they may enter a lake, streambed, or flowing stream by Permittee or any party working under contract or with the permission of Permittee, will be removed immediately;
- No equipment maintenance will be done within or near any lake, streambed, or flowing stream where petroleum products or other pollutants from the equipment may enter these areas under any flow; and
- No broken concrete, cement, debris, soil, silt, sand, bark, slash, sawdust, rubbish, or washings thereof, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature will be allowed to enter into or be placed where it may be washed by rainfall or runoff into waters of the State. When operations are completed, any excess materials or debris will be removed from the work

area. No rubbish will be deposited within 150 feet of the high water mark of any lake, streambed, or flowing stream. Preservation will occur only within a newly created onsite conservation area.

#### *Accidental Encroachments During Construction*

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

- Construction worker training will be provided by a qualified biologist at the first preconstruction meeting;
- Exclusionary fencing and signs will be erected near the top of slope adjacent to conserved riparian/riverine habitat to prevent accidental/unauthorized intrusions during construction;
- No equipment will be operated in areas of flowing water;
- Construction access and staging areas for storage of materials and heavy equipment, and for fueling, cleaning, or maintenance of construction vehicles or equipment, will be prohibited within 20 feet from the top of slope adjacent to conserved riparian/riverine habitat; and
- A qualified biologist will be onsite during initial clearing/grubbing, grading, and/or construction activities within the riparian/riverine habitat within Drainage 6 to be impacted, or within 100 feet of the habitat to be avoided, and shall periodically monitor these activities to ensure they do not exceed the fenced construction limits.

#### *Post-Construction Human Disturbances*

The project will incorporate special edge treatments designed to minimize edge effects by providing a safe transition between developed areas and conserved riparian/riverine habitat, and which would be compatible with project operation and the protection and sustainability of conserved areas. Special edge treatments will include native landscaping on re-contoured slopes as part of the proposed 1.7-acre onsite conservation areas which includes the creation of wetland and riparian/riverine habitat, as well as fencing/signage near the top of slope adjacent to the proposed onsite conservation area to prevent unauthorized public access, vandalism, illegal dumping, and other adverse human disturbances.

Therefore, the Project is compliant with Section 6.1.4 of the MSHCP and will not result in significant indirect impacts to riparian/riverine resources associated with Temescal Creek.

#### **Additional Survey Needs and Procedures (Section 6.3.2)**

The Project site is not located within the Amphibian Species Survey Area or the Mammal Species Survey Area of the MSHCP. The Project site is located within the Burrowing Owl Survey Area.

Based on the Habitat Assessment prepared, suitable burrows were observed onsite that have the potential to provide suitable nesting opportunities for burrowing owl and the Project site was



determined to have a moderate potential to provide suitable habitat for burrowing owl. Focused surveys for burrowing owl conducted and none were observed.

A burrowing owl pre-construction survey is also required (in accordance with MSHCP Burrowing Owl Objective 6) because the Project site was determined to support suitable habitat for burrowing owl and there is a potential they could start utilizing the site prior to construction start. With implementation of mitigation measure **MM BIO-6**, potential impacts to burrowing owl would be less than significant and the Project is in compliance with Section 6.3.2.

In conclusion, the proposed Project would not conflict with any provisions of the Western Riverside County MSHCP/NCCP or any other local, regional, or state conservation plan. **Potential impacts are less than significant with implementation of mitigation measures (MM BIO-1 through MM BIO-7).**

**Threshold:** Have a substantial adverse effect, either directly or through habitat modifications, on any endangered, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12).

#### **Endangered, Threatened, or Sensitive Plant Species**

As outlined in the *Habitat Assessment and MSHCP Consistency Report* a literature search identified that twenty (20) sensitive plant species occur in the Project vicinity, within the Lake Mathews and Alberhill quadrangles. Sensitive plant species were evaluated during the Habitat Assessment for their potential to occur within the project boundaries based on habitat requirements, availability and quality of suitable habitat, and known distributions. Of the 20 special status plant species, it was determined that the Project site has moderate potential to provide suitable habitat for the following plants:

- Munz's onion (federally endangered, state threatened, CNPS 1B.1)
- round-leaved filaree (CNPS 1B.1)
- many-stemmed dudleya (CNPS 1B.2)
- Hammitt's clay-cress (CNPS 1B.2)

Focused surveys were completed for these sensitive plant species and were negative. These sensitive species are presumed absent from the Project site. The proposed Project would not adversely affect threatened, endangered, or sensitive plant species.

#### **Endangered, Threatened, or Sensitive Wildlife Species**

As outlined in the *Habitat Assessment and MSHCP Consistency Report* a literature search identified that twenty-three (23) sensitive wildlife species occur in the Project vicinity, within the Lake Mathews and Alberhill quadrangles. Based on habitat requirements for specific species, availability and quality of habitats needed by sensitive wildlife species, it was determined that the project site has a moderate potential to provide suitable habitat for the following birds:

- burrowing owl (state species of special concern)

- California gnatcatcher (federally threatened, state species of special concern)
- least Bell's vireo (federally and state endangered)

Some of the plant communities on the project site provide the open vegetation needed by burrowing owl to allow for line-of-sight observation. During the Habitat Assessment, suitable burrows were observed onsite that have the potential to provide suitable nesting opportunities for burrowing owl. However, during the Habitat Assessment no burrowing owls or burrowing owl signs were observed. A focused survey was conducted and was also negative for burrowing owl. Prior to ground disturbing activities, an additional pre-construction survey is required and would ensure any active burrowing owl nests would be avoided. With implementation of mitigation measure **MM BIO-6**, potential impacts to burrowing owl would be less than significant.

The Riversidean sage scrub plant community found on the Project site is disturbed and only provides marginally suitable habitat for the California gnatcatcher. Focused surveys for California gnatcatcher are not required under the MSHCP. Clearing of occupied California gnatcatcher habitat within Public-Quasi Public and Criteria Area is prohibited between March 1 and August 15. California gnatcatcher is a fully covered species under the MSHCP and compliance with the MSHCP provides take authority and mitigation for loss of California gnatcatcher habitat.

The riparian vegetation associated with Drainage 4 has the potential to provide suitable habitat for least Bell's vireo. Least Bell's vireo is known to nest within Temescal Creek, which is located approximately 800-feet from the riparian habitat on the Project site. LBVI is an edge species and could migrate onto the Project site. No least Bell's vireo were observed during focused protocol surveys on the Project site and least Bell's vireo is presumed to be absent from the Project site and direct impacts are not expected. Potential indirect impacts to least Bell's vireo that may occur in the Project vicinity are reduced to less than significant levels with implementation of mitigation measures **MM BIO-1** through **MM BIO-7** and compliance with the MSHCP.

No other sensitive wildlife (amphibian or reptile) species are expected to occur on site.

As outlined in Section 6.1.1 of the MSHCP (Volume 1, Section 6, page 6-3),

*Payment of the mitigation fee and compliance with the requirements of Section 6.0 are intended to provide full mitigation under the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), Federal Endangered Species Act, and California Endangered Species Act for impacts to the species and habitats covered by the MSHCP pursuant to agreements with the US Fish and Wildlife Service, the California Department of Fish and Game [Wildlife] and/or any other appropriate participating regulatory agencies and as set forth in the Implementing Agreement for the MSHCP.*

The Project is in compliance with Section 6.0 of the MSHCP as outlined above and as a condition of approval will be required to pay the mitigation fee prior to obtaining a grading permit. Therefore, with compliance with the MSHCP, payment of the MSHCP fee, and with implementation of mitigation measures **MM BIO-1** through **MM BIO-7**, potential impacts to threatened, endangered, or sensitive plant and wildlife species **are less than significant**.

#### **Other Protected Birds**

The plant communities within and adjacent to the Project site have the potential to provide suitable nesting opportunities for raptors and passerines. In order to ensure Project grubbing and grading activities do not impact birds and their nests protected under the MBTA or the Fish and Game Code, mitigation measure **MM BIO-7** shall be implemented. With implementation of **MM BIO-7** potential impacts to birds and their nests **are less than significant**.

**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 U.S. Fish and Wildlife Service.

Please refer analysis under the threshold above.

**Threshold:** Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

The proposed project is primarily located in Criteria Cell 3448 with portions of the project site extending into Criteria Cells 3349 and 3350. These two cells contribute to the assembly of the Proposed Extension of Existing Core 2 which consists of habitat associated with Temescal Canyon Wash and adjacent upland areas. The primary goal of this Cell group is conservation focused on riparian scrub, woodland, forest, and Riversidean alluvial fan sage scrub habitat associated with Temescal Wash to provide habitat for avian and mammal species, and also provides for movement of species.

Immediately east of the project site and east of Temescal Canyon Road is a small mountain peak that separates the project site from the Temescal Canyon Wash. The wash flows around the eastern side of the mountain in a northerly direction and briefly crosses Temescal Canyon Road (north of the project site) as it maintains its northerly course. Additionally, the project site has been subject to various human disturbances and provides limited habitat for the species identified in the MSHCP as having the potential to occur within the Estelle Mountain/Indian Canyon Subunit of the Elsinore Area Plan. The proposed development is located adjacent and parallel to Temescal Wash and will not impact Temescal Canyon Wash or habitat associated with the wash. No migratory corridors or linkages are located on the project site, and the proposed development will not affect any migratory corridors or linkages in the vicinity of the project site. Therefore, **impacts would be 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, regulations, or by the California Department of Fish and Game [Wildlife] or U.S. Fish and Wildlife Service.

The Jurisdictional Delineation determined the riparian habitat and sensitive natural community types that exist on the site are riverine, riparian, and wetland habitats. Specifically, there are

0.19 acres of riverine habitat, 0.41 acres of riparian habitat, and 0.01-acre wetland habitat, totaling 0.61 acre of riparian/riverine/wetland resources on the Project site. The MSHCP requires a Determination of Biologically Equivalent or Superior Preservation (DBESP) analysis for project that create impacts to riverine, riparian, and wetland habitats. The purpose of the DBESP analysis is to ensure that there is not a substantial adverse effect to these sensitive resources by implementing Project specific design features, minimization measures, and mitigation measures.

Of the total 0.61-acre riparian/riverine/wetland resources on the project site, 0.12-acre of riverine habitat, 0.38-acres of riparian habitat and 0.01-acre of wetland habitat will be impacted. The project will avoid 0.07 acres of riverine habitat and 0.03 acres of riparian habitat. The loss of 0.12 acres of riverine habitat, 0.38 acres of riparian habitat and 0.01 acres of wetland habitat will be offset at a ratio of 2:1 for riverine habitat, 3:1 for riparian habitat and 4:1 for wetland habitat by the enhancement/revegetation of an onsite riverine/riparian/wetland feature that will be permanently preserved and maintained as an onsite conservation area.

The enhanced drainage feature will total 1.7 acres in extent and will meet the above referenced ratios for enhancement and replacement values. The enhanced riverine/riparian/wetland feature will be created by replacing the existing conveyance system of created earthen channels to an underground storm drain. The underground storm drain will convey storm water runoff from the I-15 Freeway and the project site to Temescal Creek via the enhanced riverine/riparian/wetland feature.

Besides water conveyance this northern created feature will also provide wetlands habitat, natural water treatment, wildlife habitat for riparian species, including least Bell's vireo, and movement opportunities between Temescal Creek and Santa Ana Mountains for more mobile species able to cross over the I-15 Freeway. Construction of the enhanced riverine/riparian/wetland feature would result in net increase in riparian/riverine habitat. With implementation of the enhanced riverine/riparian/wetland feature and the proposed minimization and mitigation measures, the Project would represent a biologically superior alternative to existing pre-project conditions. Impacts to riparian habitat or other sensitive natural community habitat would be **less than significant**.

**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.

The Project will result in impacts to 0.01 acre of wetland waters of the US and 0.12-acre non-wetland waters of the U.S., for a total of 0.13 acre of impacts under USACE jurisdiction.

The Project will impact a total of 0.12 un-vegetated streambed, 0.38 streambed associated riparian vegetation, and 0.01-acre wetland, for a total of 0.51 acre of impacts under CDFW jurisdiction.

As outlined in the DBESP, the loss of 0.12 acres of riverine habitat, 0.38 acres of riparian habitat and 0.01 acres of wetland habitat will be offset/mitigated for at a ratio of 2:1 for riverine habitat, 3:1 for riparian habitat and 4:1 for wetland habitat by the enhancement/revegetation of an onsite riverine/riparian/wetland feature that will be permanently preserved and maintained as an onsite conservation area.

Prior to the start of construction activities onsite, the project applicant is required to obtain a CWA Section 404 Permit from USACE (anticipated to be a Nationwide Permit No. 39: Commercial and Institutional Developments), a CWA Section 401 Water Quality Certification from the RWQCB, and a Streambed Alteration Agreement from CDFW.

With implementation of the onsite riverine/riparian/wetland feature conservation area as mitigation for impacts, the Project will not have a substantial adverse impact to federally protected wetlands; **Potential impacts are less than significant**.

**Threshold:** Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

The County of Riverside Oak Tree Management Guidelines, approved on March 2, 1993 and revised in September 1999, provides guidance that maximizes preservation and minimizes impacts to oak trees through project design for proposed private development.

The northern boundary of the project site narrowly crosses a small north facing slope that supports a coast live oak riparian forest. Plant species found in this small area include coast live oak (*Quercus agrifolia*), sycamore (*Plantanus racemosa*), willow, and cottonwood. The proposed development will avoid the coast live oak riparian forest in this area. Additionally, there are ten (10) large oak trees found on the southeast corner of the project site adjacent to Temescal Canyon Road. These trees have been tagged and numbered. Since these trees are spread out and do not form a uniform canopy, they are not considered an oak woodland plant community.

The proposed Project will follow the Oak Tree Management Guidelines to protect and preserve the oak trees on the project site to the greatest extent feasible. The Project will comply with the Oak Tree Management Guidelines and potential impacts are less than significant.

Refer to Section 5.5 Land Use for an analysis of the Project's consistency with ELAP policies related to biological resources.

### **5.2.7 Proposed Mitigation Measures**

The following mitigation measures are applicable regulations and requirements that are required for the proposed project.

**MM BIO-1** During soil excavation, grading, or other subsurface disturbance within 100 feet of conserved riparian/riverine habitat onsite, the construction superintendent shall supervise provision and maintenance of all standard dust control best management practices (BMPs) to reduce fugitive dust emissions, including but not limited to the following actions:

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

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

**MM BIO-2** The onsite construction superintendent shall implement the following measures to minimize short-term noise levels caused by construction activities. Measures to reduce construction noise shall be included in contractor specifications and include, but not be limited to, the following:

- Properly outfit and maintain construction equipment with manufacturer-recommended noise-reduction devices to minimize construction-generated noise;
- Operate all diesel equipment with closed engine doors and equip with factory recommended mufflers;
- Use electrical power, when feasible, to operate air compressors and similar power tools;
- Employ additional noise attenuation techniques, as needed, to reduce excessive noise levels within conserved Riparian/ Riverine Habitat onsite, such as placement of temporary sound barriers or sound blankets at the top of slope adjacent to these areas; and
- Locate construction staging areas at least 100 feet from Drainage 4.

**MM BIO-3** To avoid light spillover into the adjacent conserved riparian/riverine habitat onsite, any proposed lighting fixtures within 100 feet of these areas shall incorporate internal baffles to direct the light towards the ground and shall have a zero side-angle cut-off to the horizon. All lighting and fencing for infrastructure adjacent to jurisdictional areas shall be designed or reviewed by a qualified biologist to allow wildlife to move without hindrance.

**MM BIO-4** The following measures shall be incorporated into the construction documents and specifications, and implemented by the contractor during grading activities, to avoid potential construction-related impacts to conserved riparian/riverine habitat outside of the approved disturbance limits:

- Construction worker training will be provided by a qualified biologist at the first preconstruction meeting;
- Exclusionary fencing and signs will be erected near the top of slope adjacent to conserved riparian/riverine habitat to prevent accidental/unauthorized intrusions during construction;
- No equipment will be operated in areas of flowing water;
- Construction access and staging areas for storage of materials and heavy equipment, and for fueling, cleaning, or maintenance of construction

vehicles or equipment, will be prohibited within 20 feet from the top of slope adjacent to conserved riparian/riverine habitat; and

- A qualified biologist will be onsite during initial clearing/grubbing, grading, and/or construction activities within the riparian/riverine habitat within Drainage 6 to be impacted, or within 100 feet of the habitat to be avoided, and shall periodically monitor these activities to ensure they do not exceed the fenced construction limits. A brief summary report shall be prepared by the monitoring biologist and submitted to the Riverside County Environmental Programs Department prior to issuance of a building permit.

**MM BIO-5** The project shall incorporate special edge treatments designed to minimize edge effects by providing a safe transition between developed areas and conserved riparian/riverine habitat, and which would be compatible with project operation and the protection and sustainability of conserved areas. Special edge treatments shall include native landscaping on re-contoured slopes as part of the proposed 1.7-acre onsite conservation areas which includes the creation of wetland and riparian/riverine habitat, as well as fencing/signage near the top of slope adjacent to the proposed onsite conservation area to prevent unauthorized public access, vandalism, illegal dumping, and other adverse human disturbances. These edge treatments shall be included in the landscape plans and approved by the County Planning Department prior to issuance of a building permit.

**MM BIO-6** Prior to issuance of a grading permit, a pre-construction presence/absence survey for burrowing owl within the survey area where suitable habitat is present shall be conducted (in accordance of MSHCP Burrowing Owl Objective 6). Surveys shall be conducted within 30 days prior to disturbance. Take of active nests will be avoided. Passive relocation (use of one-way doors and collapse of burrows) will occur when owls are present outside the nesting season.

**MM BIO-7** Prior to issuance of a grading permit, if ground-disturbing activities or removal of any trees, shrubs, or any other potential nesting habitat are scheduled within the avian nesting season (nesting season generally extend from February 1 - August 31, but can vary from year to year based upon seasonal weather conditions), a pre-construction clearance survey for nesting birds, should be conducted within 10 days prior to any ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active bird nests will occur. If an active avian nest is discovered during the 10-day preconstruction clearance survey, construction activities should stay outside of a 300-foot buffer around the active nest. For raptor species, this buffer is expanded to 500-feet. It is recommended that a biological monitor be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, normal construction activities can occur.

### 5.2.8 Summary of Project-Specific Environmental Effects after Mitigation Measures are Implemented

Mitigation measures **MM BIO-1 through MM BIO-5** require Project construction and design features be implemented to avoid or reduce indirect project-related impacts, including those from toxics, lighting, noise, invasive plant species, barriers, and grading/land development, to offsite riparian/riverine habitat associated with Temescal Wash to the greatest extent feasible. Mitigation measure **MM BIO-6** requires a pre-construction burrowing owl survey to ensure any active burrowing owl nests would be avoided. **MM BIO-7** will reduce the potential for impacts to nesting avian species by requiring a pre-construction survey if project activities occur during nesting season. After implementation of mitigation measures potential impacts to sensitive biological resources from the Project are reduced to **less than significant**.

### 5.2.9 References

The following references were used in the preparation of this section of the DEIR:

County	County of Riverside, Elsinore Area Plan, 2014. (Available at: <a href="http://planning.rctlma.org/Portals/0/genplan/general_plan_2014/GPA960/GPVolume2/4Elsinore%20Area%20Plan-%20GPA%20No%20960%20Volume%202%202014-02-20.pdf">http://planning.rctlma.org/Portals/0/genplan/general_plan_2014/GPA960/GPVolume2/4Elsinore%20Area%20Plan-%20GPA%20No%20960%20Volume%202%202014-02-20.pdf</a> , accessed August 10, 2017)
County	County of Riverside, Riverside County Oak Tree Management Guidelines, revised 1999. (Available at: <a href="http://planning.rctlma.org/Portals/0/devproc/guidelines/oak_trees/oak_trees.html">http://planning.rctlma.org/Portals/0/devproc/guidelines/oak_trees/oak_trees.html</a> , accessed August 10, 2017)
DBESP	Thomas McGill, Ph.D., <i>Determination of Biologically Equivalent or Superior Preservation</i> , March 2018. (Appendix C)
HA	Thomas McGill, Ph.D., <i>Habitat Assessment and MSHCP Consistency Analysis</i> , January 2017. (Appendix C)
JD	Thomas McGill, Ph.D., <i>Jurisdictional Delineation Report</i> , January 2014. (Appendix C)
RCA	Western Riverside County Riverside Conservation Authority, Western Riverside County Multiple Species Habitat Conservation Plan, 2003. (Available at: <a href="http://www.wrc-rca.org/about-rca/multiple-species-habitat-conservation-plan/">http://www.wrc-rca.org/about-rca/multiple-species-habitat-conservation-plan/</a> , accessed August 10, 2017)

### 5.3 Greenhouse Gas Emissions

The focus of this section is to analyze potential impacts related to greenhouse gas (GHG) emissions. Based upon the analysis in the IS/NOP prepared for this Project (Appendix A), all thresholds related to GHG were found to have potentially significant impacts and will be analyzed herein.



An individual project cannot generate enough GHG emissions to effect a discernible change in global climate. However, the proposed Project may participate in this potential impact by its incremental contribution combined with the cumulative increase of all other sources of GHGs which, when taken together, may influence global climate change. Because these changes may have serious environmental consequences, this section will evaluate the potential for the proposed Project to have a significant effect upon California's environment as a result of its potential contribution to the enhanced greenhouse effect.

The analysis in this section is based on the *Riverside County Screening Table for GHG Implementation Measures for Commercial Development and Public Facilities for Toscana Village at Temescal Valley* prepared for this Project by Albert A. Webb Associates in January 2018 (included as Appendix D).

### 5.3.1 Setting

The earth's natural warming process is known as the "greenhouse effect." Certain atmospheric gases act as an insulating blanket for solar energy to keep the global average temperature in a suitable range. These gases are called "greenhouse gases" because they trap heat like the glass walls of a greenhouse. The greenhouse effect raises the temperature of the earth's surface by about 60 degrees Fahrenheit. With the natural greenhouse effect, the average temperature of the earth is about 45 degrees Fahrenheit; without it, the earth would be about minus 15 degrees. It is normal for the earth's temperature to fluctuate over extended periods of time. Over the past one hundred years, however, the earth's average global temperature has generally increased by one degree Fahrenheit. In some regions of the world, the increase has been as much as four degrees Fahrenheit.

Scientists studying the particularly swift rise in global temperatures during the late twentieth century believe that natural variability alone does not account for that rise. Rather, human activity spawned by the industrial revolution has resulted in increased emissions of carbon dioxide and other forms of GHGs, primarily from the burning of fossil fuels (during motorized transport, electricity generation, consumption of natural gas, industrial activity, manufacturing, etc.) and deforestation, as well as agricultural activity and the decomposition of solid waste. The most common GHG is carbon dioxide (CO<sub>2</sub>), which constitutes approximately 84 percent of all GHG emissions in California (CEC 2006). Worldwide, the State of California ranks as the 12th to 16th largest emitter of CO<sub>2</sub> and is responsible for approximately two percent of the world's CO<sub>2</sub> emissions. Scientists refer to the global warming context of the past century as the "enhanced greenhouse effect" to distinguish it from the natural greenhouse effect (CEC 2006). While the increase in temperature is known as "global warming," the resulting change in weather patterns is known as "global climate change." Global climate change is evidenced in changes to wind patterns, storms, precipitation, and air temperature.

Global climate change is, by definition, a global issue and California's efforts to reduce GHG emissions will not alone change the impact of global climate change. Global concentrations of GHG rather than locational GHG emissions result in adverse climate change impacts that differentially occur throughout the world, and specific scientific metrics and methodologies to measure the climate change consequences (if any) of locally-specific impacts remain subject to considerable scientific uncertainty. For example, California emits only a tiny fraction of global GHG. The whole of the California economy's GHG emissions have dropped from approximately 1.35% percent of global GHG emissions in 1990 to 0.98% percent in 2011. As Governor Brown recently noted about California's GHG reduction efforts, "we can do things in California, but if

others don't follow, it will be futile." Thus, reducing California's GHG emissions (even as the 8th largest economy in the world) cannot meaningfully impact the quantity of GHGs in the global atmosphere. To date, the vast majority of other states and nations have not followed California's lead in mandating GHG emission reductions across a broad spectrum of economic sectors under laws and regulations discussed in greater detail below, and have not enacted regulations similar to those adopted in California. California already has nearly the lowest level of GHG per capita of any state. Project-level emissions for activities that occur as a result of population-based variables (people needing housing, jobs, and services) that occur in California reduces global GHG emissions by facilitating more growth and development in California relative to other states.

### Greenhouse Gases

Gases responsible for global climate change in the Basin and their relative contribution to the overall warming effect are carbon dioxide (55 percent), chlorofluorocarbons (CFCs) (24 percent), methane (15 percent), and nitrous oxide (6 percent). It is widely accepted that continued increases in 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).

"Stratospheric ozone depletion" refers to the slow destruction of naturally occurring ozone, which lies in the upper atmosphere (called the stratosphere) and which protects Earth from the damaging effects of solar ultraviolet radiation. Certain compounds, including CFCs, halons, carbon tetrachloride, methyl chloroform, and other halogenated compounds, accumulate in the lower atmosphere and then gradually migrate into the stratosphere. In the stratosphere, these compounds participate in complex chemical reactions to destroy the upper ozone layer. Destruction of the ozone layer increases the penetration of ultraviolet radiation to the Earth's surface, a known risk factor that can increase the incidence of skin cancers and cataracts, contribute to crop and fish damage, and further degrade air quality (SCAQMD 2005).

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

- **Carbon dioxide** – 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 the Basin, approximately 48 percent of carbon dioxide 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. 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 nitrous oxide 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 nitrous oxide emissions relative to carbon dioxide or methane is relatively small. Sulfur hexafluoride, hydrofluorocarbon, and perfluorocarbon emissions occur at even lower rates.
- **Chlorofluorocarbons** – Chlorofluorocarbons (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 SCAB 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 GHG. 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** – 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. 1,1,1-trichloroethane (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.

Unlike criteria air pollutants, which are pollutants of regional and local concern, climate change 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.

### Global Warming Potentials

Individual GHGs have varying global warming potential and atmospheric lifetimes. The Intergovernmental Panel on Climate Change (IPCC) developed the Global Warming Potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of individual GHGs is determined through a comparison with the GWP of CO<sub>2</sub>. CO<sub>2</sub> has a GWP of one; CH<sub>4</sub> has a GWP of 28, meaning that on a molecule by molecule basis, CH<sub>4</sub> has 28 times the global warming potential of CO<sub>2</sub>. CO<sub>2</sub>-equivalents (CO<sub>2</sub>E) are the emissions of a GHG multiplied by the GWP. **Table 5.0-H: Global Warming Potentials and Atmospheric Lifetimes** shows the GWP and atmospheric lifetimes of various GHGs with relatively long atmospheric lifetimes from the IPCC 2013 report.

**Table 5.0-H: Global Warming Potentials and Atmospheric Lifetimes**

Gas	Atmospheric Lifetime	Global Warming Potential (100-Year Time Horizon)
Carbon Dioxide (CO <sub>2</sub> )	--	1
Methane (CH <sub>4</sub> )	12.4	28
Nitrous Oxide (N <sub>2</sub> O)	121	265-298
Hydrofluorocarbons (HFCs) HFC-134a	13.4	1,300-1,550
Perfluoromethane (CF <sub>4</sub> )	50,000	6,630-7,350
Chlorofluorocarbons (CFCs) CFC-11	45	4,660-5,350

Source: Intergovernmental Panel on Climate Change, Fifth Assessment Report, *Climate Change 2013– The Physical Science Basis*, 2013, Table 8.7

### 5.3.2 Related Regulations

Due to the international scope of impacts of greenhouse gas emissions, a variety of international treaties and other developments have been created to reduce GHG emissions and minimize potential impacts of climate change on a global scale.

### International Treaties and Other Developments

The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change. It was adopted in Kyoto, Japan, on December 11, 1997 and entered into force on February 16, 2005 for the 141 countries that ratified it. The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing GHG emissions. The targets amount to an average of five percent reduction against 1990 levels over the five-year period 2008-2012. The major distinction between the Protocol and the Convention is that while the Convention encouraged industrialized countries to stabilize GHG emissions, the Protocol commits them to do so. Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities" (UN 1997).

Negotiations after Kyoto have continued in an attempt to address the period after the first "commitment period" of the Kyoto Protocol, concluded at the end of 2012. In Durban, South Africa in 2011, parties to the protocol agreed in principle to negotiate a new comprehensive and legally binding climate agreement by 2015 and to enter it into force for all parties starting from 2020. Intensive negotiations took place under the Ad Hoc Group on the Durban Platform for Enhanced Action (ADP) throughout 2012 through 2015 and culminated in the adoption of the Paris Agreement by the Conference of the Parties (COP) on December 12, 2015. The Paris Agreement seeks to accelerate and intensify the actions and investment needed for a sustainable low carbon future. Its central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (UN 2016a).

In accordance with Article 21, paragraph 1, of the Paris Agreement, the Agreement shall enter into force on the thirtieth day after the date on which at least 55 Parties to the Convention accounting in total for at least an estimated 55 percent of the total global greenhouse gas emissions have deposited their instruments of ratification, acceptance, approval or accession with the Depositary. As of September 3, 2016, there are 180 signatories to the Paris Agreement. Of these, 26 States have also deposited their instruments of ratification, acceptance or approval accounting in total for 39.06 percent of the total global greenhouse gas emissions. The United States ratified the Paris agreement on September 3, 2016. In accordance with its article 20, the Agreement shall be open for signature at the United Nations Headquarters in New York from April 22, 2016 until April 21, 2017 by States and regional economic integration organizations that are Parties to the United Nations Framework Convention on Climate Change (UN 2016b). On June 1, 2017, President Donald Trump announced that he was withdrawing the United States from the Paris Agreement. Although the actual withdrawal will occur over the next few years, the withdrawal would not directly affect state-wide and local efforts (discussed below) to reduce GHG emissions.

#### 5.3.2.1 Federal Regulations

Although the U.S. was not a party to the original Kyoto Protocol, in 2002 President George W. Bush set a national policy goal of reducing the GHG emission intensity (tons of GHG emissions per million dollars of gross domestic product) of the U.S. economy by 18 percent by 2012 (NOAA). The goal did not establish any binding reduction mandates. Rather, the United States

Environmental Protection Agency (EPA) began to administer a variety of voluntary programs and partnerships with industries that produce and utilize synthetic gases to reduce emissions of particularly potent GHGs.

### **Supreme Court Ruling in Massachusetts et al. v. Environmental Protection Agency**

The Bush Administration's approach to addressing climate change was challenged in Massachusetts et al. v. Environmental Protection Agency, 549 US 497 (2007). In this decision, the U.S. Supreme Court held that the USEPA was authorized by the Clean Air Act to regulate CO<sub>2</sub> emissions from new motor vehicles (MASS). The Court did not mandate that the EPA enact regulations to reduce GHG emissions, but found that the only instance in which the EPA could avoid taking action were if it found that GHGs do not contribute to climate change or if it offered a "reasonable explanation" for not determining that GHGs contribute to climate change.

On December 7, 2009, the EPA issued an "endangerment finding" under the Clean Air Act concluding that GHGs threaten the public health and welfare of current and future generations and that motor vehicles contribute to greenhouse gas pollution (EPA ECCF). These findings provide the basis for adopting new national regulations to mandate GHG emission reductions under the federal Clean Air Act. The EPA's endangerment finding paved the way for federal regulation of GHGs.

It was expected that Congress would enact GHG legislation primarily for a cap-and-trade system. However, proposals circulated in both the House of Representatives and Senate were controversial and it may be some time before Congress adopts major climate change legislation. Under the Consolidated Appropriations Act of 2008 (HR 2764), Congress established mandatory GHG reporting requirements for some emitters of GHGs. In addition, on September 22, 2009, the EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule. The rule requires annual reporting to the EPA of GHG emissions from large sources and suppliers of GHGs, including facilities that emit 25,000 metric tons or more a year of GHGs.

The following sections summarize the EPA's recent regulatory activities with respect to various types of GHG sources.

### **EPA and NHTSA Joint Rulemaking for Vehicle Standards**

In response to the Massachusetts v. EPA ruling discussed above, the Bush Administration issued an Executive Order on May 14, 2007, directing the USEPA, the Department of Transportation (DOT), and the Department of Energy (DOE) to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008.

On October 10, 2008, the National Highway Traffic Safety Administration (NHTSA) released a final environmental impact statement analyzing proposed interim standards for passenger cars and light trucks in model years 2011 through 2015. The NHTSA issued a final rule for model year 2011 on March 30, 2009 (NHTSA 2009).

On May 7, 2010, the EPA and the NHTSA issued a final rule regulating fuel efficiency and GHG pollution from motor vehicles for cars and light-duty trucks for model years 2012–2016 (EPA 2010). On May 21, 2010, President Obama issued a memorandum to the Secretaries of Transportation and Energy, the Administrators of the EPA, and the NHTSA calling for establishment of additional standards regarding fuel efficiency and GHG reduction, clean fuels,

and advanced vehicle infrastructure. (GPO FR 2010) In response to this directive, the EPA and NHTSA issued a Supplemental Notice of Intent announcing plans to propose stringent, coordinated federal greenhouse gas and fuel economy standards for model year 2017-2025 light-duty vehicles (GPO FR 2011). The agencies proposed standards projected to achieve 163 grams/mile of CO<sub>2</sub> in model year 2025, on an average industry fleet wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The California Air Resources Board (CARB) announced its support of this national program (CARB 2011a). The final rule was adopted in October 2012 and NHTSA intends to set standards for model years 2022-2025 in a future rulemaking (NHTSA 2012a, NHTSA 2012b).

### **Heavy-duty Engines and Vehicles Fuel Efficiency Standards**

In addition to the regulations applicable to cars and light-duty trucks, on August 9, 2011, the USEPA and the NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks, which applies to vehicles from model year 2014-2018 (EPA 2011). The EPA and NHTSA adopted standards for CO<sub>2</sub> emissions and fuel consumption respectively, tailored to each of three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this program will reduce GHG emissions and fuel consumption for affected vehicles by nine percent to 23 percent.

### **USEPA SmartWay<sup>SM</sup> Program**

SmartWay is an EPA program that reduces transportation-related emissions by creating incentives to improve supply chain fuel efficiency. There are five primary elements of the program: (1) SmartWay Transport Partnership, a partnership in which freight carriers and shippers commit to benchmark operations, track fuel consumption and improve performance annually; (2) SmartWay Technology Program, a testing, verification, and designation program to help freight companies identify equipment, technologies and strategies that save fuel and lower emissions; (3) SmartWay Finance Program, a competitive grant program that makes investing in fuel-saving equipment easier for freight carriers; (4) SmartWay Vehicles, a program that ranks light-duty cars and small trucks and identifies superior environmental performers with the SmartWay logo; and (5) SmartWay International Interests, which provides guidance and resources for countries seeking to develop freight sustainability programs modeled after SmartWay (EPA SW).

### **Energy Independence and Security Act**

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law (EISA). Among other key measures, the Act would do the following, which would aid in the reduction of national mobile and non-mobile GHG emissions:

1. Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
2. Prescribe or revise standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

3. While superseded by NHTSA and USEPA actions described above, EISA also set miles per gallon targets for cars and light trucks and directed the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.

Additional provisions of the EISA address energy savings in government and public institutions, promoting research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green jobs."

### **American Recovery and Reinvestment Act**

On February 17, 2009, President Obama signed the American Recovery and Reinvestment Act (ARRA) of 2009. ARRA was passed in response to the economic crisis of the late 2000s with the primary purpose to maintain existing jobs and create new jobs. Among the secondary objectives of ARRA was investment in "green" energy programs including funding the following through grants, loans, or other funding, private companies developing renewable energy technologies, local and state governments implementing energy efficiency and clean energy programs, research in renewable energy, biofuels, and carbon capture, and development of high efficiency or electric vehicles (EPA 2009).

### **Voluntary Programs**

The EPA administers a variety of voluntary programs and partnerships with GHG emitters in which the EPA partners with industries that produce and utilize synthetic gases to reduce emissions of particularly potent GHGs.

For example, the EPA's National Clean Diesel Campaign (NCDC) promotes diesel emission reduction strategies. The NCDC works to reduce the pollution emitted from diesel engines across the country through the implementation of varied pollution control strategies by working with manufacturers, fleet operators, air quality professionals, environmental and community organizations, and state and local officials to reduce diesel emissions. NCDC activities include developing new emissions standards for locomotive and marine diesel engines, promoting the reduction of emissions for existing diesel engines including use of cleaner fuels, retrofitting and repairing existing fleets, and idling reduction among others. The EPA also administers the State and Local Climate and Energy Program that provides technical assistance, analytical tools, and outreach support to state, local, and tribal governments<sup>13</sup> (EPA NCDC).

### **5.3.2.2 State Regulations**

The Western Regional Climate Action Initiative (WCI) is a partnership among seven states including California and four Canadian provinces to implement a regional, economy-wide cap-and-trade system to reduce global warming pollution. The WCI will cap GHG emissions from the region's electricity, industrial, and transportation sectors with the goal to reduce the heat trapping emissions that cause global warming to 15 percent below 2005 levels by 2020. When the WCI adopted this goal in 2007, it estimated this would require 2007 levels to be reduced worldwide between 50 and 85 percent by 2050. California is working closely with the other states and provinces to design a regional GHG reduction program that includes a cap-and-trade

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<sup>13</sup> For example: State and Local Climate and Energy Program: <http://www.epa.gov/statelocalclimate/index.html>.



approach. CARB's planned Cap-and-Trade Program, discussed below, is also intended to link California and the other member states and provinces. As of January 1, 2014, California's Cap-and-Trade Program is linked to Quebec's pursuant to the Agreement Between the California Air Resources Board and the Gouvernement du Québec Concerning the Harmonization and Integration of Cap-and-Trade Programs Reducing Greenhouse Gas Emissions, in accordance with the direction in the CARB Resolution 13-7 (CARB 2013).

Further, California has adopted various administrative initiatives and also enacted a variety of legislation relating to climate change, much of which sets aggressive goals for GHG emissions reductions within the state. However, none of this legislation provides definitive direction regarding the treatment of climate change in environmental review documents prepared under CEQA. In particular, the amendments to the CEQA Guidelines do not require or suggest specific methodologies for performing an assessment or thresholds of significance, and do not specify GHG reduction mitigation measures. Instead, the CEQA amendments continue to rely on lead agencies to choose methodologies and make significance determinations based on substantial evidence, as discussed in further detail below (CNRA 2009a). In addition, no state agency has promulgated binding regulations for analyzing GHG emissions, determining their significance, or mitigating any significant effects in CEQA documents. Thus, lead agencies exercise their discretion determining how to analyze GHGs.

The discussion below provides a brief overview of CARB and OPR documents and of the primary legislation that relates to climate change that may affect the emissions associated with the proposed Project. It begins with an overview of the primary regulatory acts that have driven GHG regulation and analysis in California.

### **Assembly Bill 32**

The California Global Warming Solutions Act of 2006 (AB 32) was signed into law in September 2006 after considerable study and expert testimony before the legislature. The law instructs CARB to develop and enforce regulations for the reporting and verifying of statewide GHG emissions. The Act directed CARB to set a GHG emission limit based on 1990 levels to be achieved by 2020. The bill set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner (AB 32).

The heart of the bill is the requirement that statewide GHG emissions be reduced to 1990 levels by 2020. Based on the CARB's calculation of California's 1990 emissions levels, California must reduce GHG emissions by approximately 28.5 percent below "business-as-usual" (BAU) predictions of year 2020 GHG emissions to achieve this goal. The bill required the CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions. The CARB has accomplished key milestones set forth in AB 32, including the following:

- June 30, 2007. Identification of discrete early action GHG emissions reduction measures. On June 21, 2007, the CARB satisfied this requirement by approving three early action measures (CARB 2007b). These were later supplemented by adding six other discrete early action measures (CARB 2007c).
- January 1, 2008. Identification of the 1990 GHG emissions level and approval of a statewide limit equivalent to that level and adoption of reporting and verification requirements concerning GHG emissions. On December 6, 2007, the CARB approved

a statewide limit on GHG emissions levels for the year 2020 consistent with the determined 1990 emissions inventory (CARB 2007a).

- January 1, 2009. Adoption of a scoping plan for achieving GHG emission reductions. On December 11, 2008, the CARB adopted Climate Change Scoping Plan: A Framework for Change (Scoping Plan), discussed in more detail below (CARB 2008).
- January 1, 2010. Adoption and enforcement of regulations to implement the "discrete" actions. Several early action measures have been adopted and became effective on January 1, 2010 (CARB 2007b, CARB 2007c).
- January 1, 2011. Adoption of GHG emissions limits and reduction measures by regulation. On October 28, 2010, the CARB released its proposed cap-and-trade regulations, which would cover sources of approximately 85 percent of California's GHG emissions (CARB 2010c). CARB's Board ordered CARB's Executive Director to prepare a final regulatory package for cap-and-trade on December 16, 2010 (CARB 2010d).
- January 1, 2012. GHG emissions limits and reduction measures adopted in 2011 became enforceable.
- On January 1, 2015, cap-and-trade compliance obligations are phased in for suppliers of natural gas, reformulated gasoline blendstock for oxygenate blending (RBOB), distillate fuel oils, and liquefied petroleum gas, with emissions that meet or exceed specified emissions thresholds.

As noted above, on December 11, 2008, the CARB adopted the Scoping Plan to achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions for various categories of emissions. The CARB determined that achieving the 1990 emission levels would require a reduction of GHG emissions of by approximately 28.5 percent to achieve 2020 emissions levels in the absence of new laws and regulations (referred to as "business as usual" (BAU)). The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team early actions and additional GHG reduction measures by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a Cap-and-Trade Program. The key elements of the Scoping Plan include: (CARB 2008)

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards
- Achieving a statewide renewable energy mix of 33 percent
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets

- Adopting and implementing measures pursuant to existing state laws and policies including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard
- Creating targeted fees including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation

In 2009, a coalition of environmental groups brought a challenge to the Scoping Plan alleging that it violated AB 32 and that the environmental review document (called a "Functional Equivalent Document") violated CEQA by failing to appropriately analyze alternatives to the proposed Cap-and-Trade Program. On May 20, 2011, the San Francisco Superior Court entered a final judgment ordering that the CARB take no further action with respect to cap-and-trade rulemaking until it complies with CEQA (AIR 2011). The CARB appealed the decision on May 23, 2011 (CARB 2011d). The portions of the Scoping Plan that do not relate to cap and trade remained valid during the litigation. While the appeal was pending, the CARB prepared a supplement to the Functional Equivalent Document that included the analysis that the trial court had determined was inadequate under CEQA. The CARB certified the supplement to the Functional Equivalent document and readopted the Scoping Plan on August 24, 2011 (CARB 2011e). On June 19, 2012, the California First District Court of Appeal upheld the Scoping Plan and affirmed CARB's approval of the Scoping Plan as in compliance with AB 32 (AIR 2012).

In connection with preparation of the supplement to the Functional Equivalent Document, the CARB released revised estimates of the expected 2020 emission reductions in consideration of the economic recession and the availability of updated information from development of measure-specific regulations. Incorporation of revised estimates in consideration of the economic recession reduced the projected 2020 emissions from 596 MMTCO<sub>2</sub>e to 545 MMTCO<sub>2</sub>e (CARB 2011c). Under this scenario, achieving the 1990 emissions level would require a reduction of GHG emissions of 118 MMTCO<sub>2</sub>e, or 21.7 percent (down from 28.5 percent), to achieve in 2020 emissions levels in the BAU condition. The CARB also updated its BAU evaluation to account for new laws and regulations mandating GHG reductions that had been implemented subsequent to the original Scoping Plan, such as the cleaner car mandates required by Pavley (vehicle model-years 2009 - 2016) and the renewable portfolio standard (12% - 20%). Inclusion of these new GHG mandates further reduced the 2020 projected estimate of GHG emissions to 507 MMTCO<sub>2</sub>e. As a result, based on both the economic recession and new GHG reduction implementation mandates, the CARB determined in 2011 that achieving the 1990 emission level (and 2020 emissions limit of 427 MMTCO<sub>2</sub>e) would require a reduction of GHG emissions of 80 MMTCO<sub>2</sub>e or a reduction by approximately 15.8 percent (down from 28.5 percent) to achieve 2020 emissions levels in the BAU condition (CARB 2011c).

On October 1, 2013, the CARB released a discussion draft of the first update to the Scoping Plan. The discussion draft recalculates the 1990 GHG emissions level using the IPCC Fourth Assessment Report (AR4) released in 2007. The first draft update to the Scoping Plan states that based on the AR4 global warming potentials, the 427 MMTCO<sub>2</sub>e 1990 emissions level and 2020 GHG emissions limit would be slightly higher than identified in the Scoping Plan, at 431 MMTCO<sub>2</sub>e (CARB 2013). Based on (1) the revised estimates of expected 2020 emissions identified in the 2011 supplement to the Functional Environmental Document, and (2) updated 1990 emissions levels identified in the draft first update to the Scoping Plan, achieving the 1990 emissions level would require a reduction of 78 MMTCO<sub>2</sub>e from the 509 MMTCO<sub>2</sub>e BAU level, or

a reduction of approximately 15.3 percent (down from 28.5 percent) to meet the 431 MMTCO<sub>2</sub>e goal (CARB 2011c, 2013).

On February 10, 2014, the CARB released the Draft Proposed First Update to the Climate Change Scoping Plan.<sup>14</sup> The board approved the final "First Update to the Climate Change Scoping Plan" on May 22, 2014. The first update describes California's progress towards AB 32 goals stating that "California is on track to meet the near-term 2020 greenhouse gas limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32." Specifically, "if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts [MW] of renewable distributed generation by 2020, net zero energy homes after 2020, existing building retrofits under AB 758, and others) it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80 percent below 1990 levels by 2050."<sup>15</sup> This first update retains from the October 2013 draft the recalculated 1990 GHG emissions level of 431 MMTCO<sub>2</sub>e, as well as the 509 MMTCO<sub>2</sub>e 2020 BAU condition (CARB 2014). Thus, under CARB's most current document, reducing the BAU condition of 509 MMTCO<sub>2</sub>e to the 1990 emissions level of 431 MMTCO<sub>2</sub>e will require a reduction of 78 MMTCO<sub>2</sub>e, or approximately a 15.3 percent reduction (compared to a 28.5 percent reduction as set forth in the original Scoping Plan).

As discussed further below, on April 29, 2015, the Governor issued Executive Order B-30-15 establishing a mid-term GHG reduction target for California of 40 percent below 1990 levels by 2030. All state agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. The CARB was directed to update the AB 32 Scoping Plan to reflect the 2030 target, and therefore, is moving forward with the update process.

### **Senate Bill 375 and SCAG Regional Transportation Plan/Sustainable Community Strategy**

SB 375 provides for a new planning process to coordinate land use planning, regional transportation plans, and funding priorities in order to help California meet the GHG reduction goals established in AB 32 (SB 375). SB 375 includes provisions for streamlined CEQA review for some infill projects such as transit-oriented development. SB 375 also requires Metropolitan Planning Organizations (MPOs) relevant to the Project area (including the Southern California Association of Governments (SCAG)) to incorporate a "sustainable communities strategy" (SCS) into their regional transportation plans (RTPs) that will achieve GHG emission reduction targets by reducing vehicle miles traveled (VMT) from light duty vehicles through development of more compact, complete, and efficient communities. This VMT reduction goal is the reduction goal most targeted at the land use decision making at issue in the County's determination of approving the project.

SB 375 is similar to the Regional Blueprint Planning Program established by the California Department of Transportation, which provides discretionary grants to fund regional transportation and land use plans voluntarily developed by MPOs working in cooperation with

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<sup>14</sup> California Air Resources Board, Proposed First Update to the Climate Change Scoping Plan: Building on the Framework, February 2014 (Available at [http://www.arb.ca.gov/cc/scopingplan/2013\\_update/draft\\_proposed\\_first\\_update.pdf](http://www.arb.ca.gov/cc/scopingplan/2013_update/draft_proposed_first_update.pdf), accessed April 7, 2014.)

<sup>15</sup> California Air Resources Board, First Update to the Climate Change Scoping Plan, May 2014. Available at: [http://www.arb.ca.gov/cc/scopingplan/2013\\_update/first\\_update\\_climate\\_change\\_scoping\\_plan.pdf](http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf). Accessed: June 2014.

Councils of Governments. The Scoping Plan adopted by the CARB in December of 2008, relies on the requirements of SB 375 to implement the carbon emissions reductions anticipated from land use decisions.

On September 23, 2010, the CARB adopted Regional Targets for the reduction of GHG applying to the years 2020 and 2035 (CARB 2010b). For the area under SCAG's jurisdiction including the project area, the CARB adopted Regional Targets for reduction of GHG emissions by eight percent for 2020 and by 13 percent for 2035. On February 15, 2011, the CARB's Executive Officer approved the final targets (CARB 2011b).

SCAG's SCS is included in the SCAG 2016-2040 Regional Transportation Plan Sustainable Communities Strategy (RTP/SCS) (SCAG 2016). The document was adopted by SCAG on April 7, 2016. The goals and policies of the RTP/SCS that reduce VMT focus on transportation and land use planning that include building infill projects, locating residents closer to where they work and play and designing communities so there is access to high quality transit service. The 2016-2040 RTP/SCS would result in an eight percent reduction in greenhouse gas emissions per capita by 2020, an 18 percent reduction by 2035 and a 21 percent reduction by 2040—compared with 2005 levels. This meets or exceeds the state's mandated reductions established by the CARB and meets the requirements of SB 375 as codified in Government Code §65080(b) et seq., which are eight percent by 2020 and 13 percent by 2035. The 2016-2040 RTP/SCS is expected to reduce the number of VMT per capita by more than seven percent and Vehicle Hours Traveled (VHT) per capita by 17 percent (for automobiles and light/medium duty trucks) as a result of more location efficient land use patterns and improved transit service.

### **Senate Bill 605**

On September 21, 2014, Governor Jerry Brown signed Senate Bill 605 (SB 605), which requires the CARB to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants in the state no later than January 1, 2016. As defined in the statute, short-lived climate pollutant means "an agent that has a relatively short lifetime in the atmosphere, from a few days to a few decades, and a warming influence on the climate that is more potent than that of carbon dioxide." SB 605, however, does not prescribe specific compounds as short-lived climate pollutants or add to the list of GHGs regulated under AB 32. In developing the strategy, the CARB must complete an inventory of sources and emissions of short-lived climate pollutants in the state based on available data, identify research needs to address any data gaps, identify existing and potential new control measures to reduce emissions, and prioritize the development of new measures for short-lived climate pollutants that offer co-benefits by improving water quality or reducing other air pollutants that impact community health and benefit disadvantaged communities. The strategy approved by the CARB in March 2017 focuses on methane, black carbon, and fluorinated gases, particularly hydrofluorocarbons, as important short-lived climate pollutants. The strategy recognizes emission reduction efforts implemented under AB 32 (e.g., refrigerant management programs) and other regulatory programs (e.g., in-use diesel engines, solid waste diversion) along with additional measures to be developed. The CARB will begin implementing the plan in January 2018 which lays out a range of options to accelerate emissions reductions in California, including regulations, incentives, and other market-supporting activities. It is not clear whether any of the Projects emissions will be effected by the strategy but SB 605 is part of the larger statewide effort to reduce GHG emissions that will allow the state to meet its statewide GHG reduction goals. (SB 605)