PEPPER AVENUE SPECIFIC PLAN

Draft Environmental Impact Report

State Clearinghouse Number 2016021047

Prepared for
City of Rialto

March 2017

ESA PCR

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EXECUTIVE SUMMARY

This Draft Environmental Impact Report (EIR) has been prepared pursuant to the requirements of the California Environmental Quality Act (CEQA, Public Resources Code sections 21000 et. seq.) with respect to the proposed Pepper Avenue Specific Plan. In accordance with CEQA Guidelines §15123, this chapter of the EIR includes (1) a brief description of the project; (2) issues raised during the Notice of Preparation (NOP) process including areas of controversy known to the lead agency; (3) identification of potentially significant impacts and proposed mitigation measures or alternatives that would reduce or avoid those impacts; and (4) issues to be resolved including the choice among alternatives and whether and how to mitigate the potential significant impacts.

A. Project Description

The City of Rialto is proposing the Pepper Avenue Specific Plan (the "Project") to guide development of a primarily vacant approximate 101.7-acre site south of the 210 Freeway along Pepper Avenue in the City of Rialto. Proposed land uses include community commercial uses with up to approximately 462,000 square feet (SF) of retail shopping center and 125,000 SF of business park uses. In addition, a residential overlay would allow up to 275 multi-family dwelling units, which if developed, would replace 116,000 SF of retail shopping center, leaving a total of 346,000 SF of retail shopping center use.

A detailed discussion of the Project is provided in Chapter 2.0, Project Description, of this EIR.

B. Issues Raised During Notice of Preparation Process

The following summarizes the key potential environmental issues raised in response to the NOP and during the public scoping meeting (the numerical reference in parenthesis is the EIR chapter/section in which the analysis is provided) and areas of controversy known to the City of Rialto. The NOP comments related to the Initial Study analysis are contained in Appendix A of this EIR.

Project Description

- Extension of public access and utilities to the Riverside Highland Water Company (RHWC) property (Refer to Chapter 1, Project Description, of this EIR).
- Open space preservation and bridge to Frisbie Park (Refer to Chapter 1, Project Description, of this EIR).

- Pedestrian connections and easements (Refer to Chapter 1, Project Description, of this EIR).

Biological Resources

- Impacts on sensitive plant and animal species (refer to Section 4.C, Biological Resources, of this EIR).
- Impacts on streams and wetlands (refer to Section 4.C, Biological Resources, of this EIR).
- Impacts on wildlife corridors (refer to Section 4.C, Biological Resources, of this EIR).
- California Department of Fish and Wildlife jurisdictional features and boundary (refer to Section 4.C, Biological Resources, of this EIR).

Hydrology

- Hydrological and drainage conditions (refer to the Initial Study, Subsection IX, Hydrology, contained in Appendix A of this EIR.

Geology

- Geological hazards (refer to the Initial Study, Subsection VI, Geology and Soils, contained in Appendix A of this EIR.

Land Use

- Consistency with the Regional Transportation Plan and Sustainable Communities Strategy (adopted 2016) (refer to Section 4.F, Land Use and Planning, of this EIR).

Public Services

- Impacts to Rialto Unified School District facilities (refer to Chapter 6, Other CEQA Considerations, of this EIR, and Initial Study Subsection XIV, Public Services, contained in Appendix A of this EIR).

Transportation/Traffic

- Operational characteristics of State facilities, including SR-210 (refer to Section 4.H, Transportation, of this EIR).

Utilities and Service Systems

- Water supply (refer to the Initial Study, Subsection XVII, Utilities and Service Systems, of this EIR).

C. Summary of Environmental Impacts

This section provides a summary of impacts, mitigation measures, and impacts after implementation of the mitigation measures associated with implementation of the Project. The summary is provided by environmental issue area below in Table ES-1, Summary of Project Impacts and Mitigation Measures.

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe significant environmental impacts that cannot be avoided, including those effects that can be mitigated but not reduced to a less than significant level. As shown in Table ES-1, based on analyses contained in this EIR, the Project would result in significant and unavoidable impacts regarding off-site noise resulting from cumulative traffic. Impacts related to air quality, biological resources, greenhouse gas emissions, construction and operational noise, and transportation were determined to be potentially significant, but reduced to less than significant levels with the implementation of mitigation measures. Other issues addressed in the Draft EIR, in which impacts were determined to be less than significant, include aesthetics and land use and planning.

Please see Section 4.G, Noise, or further discussion of the issues resulting in significant and unavoidable impacts.

D. Alternatives that Would Reduce or Avoid Significant Impacts

1. Alternative 1: No Project/No Build Alternative

The No Project/No Build Alternative (Alternative 1) assumes that no new development proposed by the Specific Plan would occur within the Project Site. Thus, the future development of community commercial, business park and, potentially, residential uses would not occur. Under the No Project/No Build Alternative, future improvements being contemplated by WVWD on their 13.7-acre Lord Ranch Facility located in the southeast portion of the Project Site could still occur. These include the construction and operation of a 1-million-gallon steel-welded reservoir, a 3,500 square-foot pump station in masonry building, paved driveway, and concrete block masonry retaining wall. The masonry retaining wall would extend along the western property line and a portion of the southerly property line to allow the ground surface around Well No. 36 to be raised about 8 feet. The remainder of the Project Site would remain undeveloped and vacant. For purposes of this analysis, because the contemplated WVWD improvements are not being proposed as part of the Specific Plan and would occur with or without the Project, those contemplated improvements are not evaluated herein. Thus, environmental effects under this Alternative would be similar to existing site conditions, as described in the existing setting sections of each analysis in Chapter 4 of this Draft EIR.

2. Alternative 2: Reduced Intensity Alternative

The Reduced Intensity Alternative (Alternative 2) would reduce the overall intensity of the Project. If the Residential Overlay were implemented under Alternative 2, this Alternative would also reduce the residential density compared to the Project. Alternative 2 would not provide for the Project's Commercial Overlay option, which would have been located in approximately 6.3 acres of retail uses in the habitat area (PA 7 and PA8). Alternative 2 would allow for a maximum of 316,000 square feet of retail floor area, which represents an approximately 31.6 percent reduction compared to the Project's 462,000 square feet of retail space. Alternative 2 would also allow up to 84,000 square feet of business park floor area, which represents an approximately

32.8 percent reduction in the Project's 125,000 square feet of business park floor area. Under Alternative 2's Residential Overlay option, this Alternative would provide 206 multi-family dwelling units, which represents an approximately 25 percent reduction compared to the Project's 275-unit Residential Overlay. As with the Project, implementation of the Residential Overlay would reduce retail shopping floor area approximately 25 percent (from 462,000 square feet to 346,000 square feet under the Project), for a total of approximately 237,000 square feet of retail space (25 percent of 316,000 square feet).

3. Alternative 3: Existing Zoning Map Alternative

The Existing Zoning Map Alternative (Alternative 3) would allow for the build-out of the 101.7-acre Project Site per the City's existing Zoning Map. Alternative 3 would allow for development of 276 single-family residences with a minimum lot size of 8,400 square feet and the development of up to 185,000 square feet of light industrial business park uses. This represents a generally equivalent number of residential units as under the Project, which would allow 275 residential units under the Residential Overlay, except that Alternative 3 would provide single-family uses rather than multi-family uses as under the Project. The business park floor area represents an approximately 45 percent increase compared to 125,000 square feet allowed under the Project. The business park uses would be confined to the northwest quadrant of the Project Site. This area is designated "General Industrial" in the City of Rialto General Plan and is shown as "Commercial Manufacturing" (C-M) in the City's Zoning map. However, the land use and zoning designations shown on the City's current Zoning and General Plan Land Use Maps were not officially adopted by the City, so that the true zoning over the site is R-1A, as described in Chapter 2, Project Description, of this EIR. Nonetheless, for purposes of this Alternatives analysis, the zoning for the Project Site as presented on the City's Zoning Map is analyzed herein. No retail uses would be developed under this Alternative. Alternative 3 would include development over the entire Project Site, including the habitat area in the western portion of the Site.

4. Environmentally Superior Alternative

A comparative discussion of the environmental impacts anticipated under each alternative is provided in Chapter 5 of this EIR, while a summary of the ability of each alternative to meet the project objectives is provided in Table 5-3, Comparison of Alternatives - Ability to Meet Project Objectives. A summary of impacts associated with each Alternative compared to Project impacts is provided in Table 5-4, Comparison of Impacts.

Section 15126.6(e)(2) of the CEQA Guidelines indicates that an analysis of alternatives to a proposed project shall identify an environmentally superior alternative among the alternatives evaluated in an EIR. The CEQA Guidelines also state that should it be determined that the No Project Alternative is the environmentally superior alternative, the EIR shall identify another environmentally superior alternative among the remaining alternatives. With respect to identifying an environmentally superior alternative among those analyzed in this EIR, the range of feasible alternatives to be considered includes Alternative 1 - No Project Alternative,

Alternative 2 – Reduced Intensity Alternative, and Alternative 3 – Existing Zoning Designation Alternative.

As discussed in Chapter 5, the No Project/No Build is considered the overall environmentally superior Alternative as it would not generate the Project's light and glare, air quality, biological resources, archaeological, GHG emissions, construction noise, and traffic impacts, as well as the Project's significant and unavoidable cumulative traffic noise impacts. Because the No Project/No Build Alternative would not implement the Specific Plan, it would not achieve the visual character benefits of the Project. In addition, it would not result in several primary beneficial aspects of the Project with respect to the objectives of the General Plan. As such, it is deemed to have greater impacts than the Project with respect to visual character and land use. In addition, the No Project/No Build Alternative would not meet any of the objectives of the Specific Plan.

Based on Table 5-3, the Reduced Intensity Alternative (Alternative 2) would substantially meet the objectives of the Project, although, because of reduced scale it would not likely generate the same revenue to the City as under the Project and, thus, would not meet the objectives of the Specific Plan increase income and revenue. However, as shown in Table 5-4, Alternative 2 would incrementally reduce the Project's less than significant light and glare, construction and operational air quality, biological resources, cultural resources, GHG emissions, operational noise, and traffic impacts. It would result in similar to the Project impact levels related to aesthetics, land use, and construction activities (construction noise, air quality, and GHG emissions). As with the Project, operational noise impacts associated with cumulative traffic would be significant and unavoidable.

As shown in Table 5-3, Alternative 3 would not meet the objectives of the Project to the same extent as Alternative 2. Because Alternative 3 would not adequately meet the objectives of the Project and would generate certain impacts that would be greater than under the Project, it would not be considered environmentally superior to Alternative 2. Therefore, in accordance with the State *CEQA Guidelines* requirement to identify an environmentally superior alternative other than the No Project Alternative, a comparative evaluation of the remaining alternatives indicates that the Reduced Intensity Alternative (Alternative 2) would be the Environmentally Superior Alternative. While the Reduced Intensity Alternative is identified as the Environmentally Superior Alternative in this EIR, this does not mean it is selected as the Project by the City. The City will consider the analysis included within this EIR along with public input throughout the environmental review process in their decision-making process to approve the Project

TABLE ES-1
SUMMARY OF PROJECT IMPACTS, MITIGATION MEASURES, AND DESIGN FEATURES

Environmental Impact	Impact Level of Significance Before Mitigation	Mitigation Measures/Design Features	Impact Level of Significance after Mitigation
4.A Aesthetics			
VIEWS/SCENIC VISTAS - Impact Statement AES-1: Because of the of the distances between the future development and public vantage points (setbacks created by permanent open space), ground elevation differences, and height restrictions on the Project's commercial and residential buildings, the Project would not substantially block views of the San Bernardino Mountains or San Gabriel Mountains from off-site public view locations. This impact is considered less than significant.	Less than significant	No mitigation measures are necessary.	Less than significant
VISUAL CHARACTER - Impact Statement AES-2: The Design Guidelines of the Specific Plan would guide development and ensure aesthetically pleasing building design, streetscape, landscape, building orientation, pedestrian amenities and other features that would contribute to the permanent visual character of the area. Thus, the Specific Plan would not substantially degrade the existing visual character or quality of the site and its surroundings. This impact is considered less than significant.	Less than significant	No mitigation measures are necessary.	Less than significant
LIGHT AND GLARE - Impact Statement AES-3: The Specific Plan would require shielding of street lights and other exterior lighting, signage requirements to reduce glare, Implementation of the proposed project would not create substantial light or glare that would adversely affect day or nighttime views in the area. This impact is considered less than significant.	Less than significant	No mitigation measures are necessary.	Less than significant
4.B Air Quality			
CONFLICT WITH APPLICABLE AIR QUALITY PLAN - Impact Statement AQ-1: Implementation of the Project would not conflict with or obstruct implementation of the applicable air quality plan (including, but not limited to, the AQMP, RTP, general plans, etc.) adopted for the purpose of avoiding or mitigating an environmental effect. This impact is considered less than significant.	Less than significant	No mitigation measures are necessary.	Less than significant

Environmental Impact	Impact Level of Significance Before Mitigation	Mitigation Measures/Design Features	Impact Level of Significance after Mitigation
VIOLATION OF AIR QUALITY STANDARDS - Impact Statement AQ-2: Implementation of the Project could violate air quality standard or contribute substantially to an existing or projected air quality violation during Project construction activities. Maximum regional construction emissions resulting from construction of Scenario 1 or Scenario 2 of the Project would exceed the SCAQMD daily significance thresholds for NOX, without mitigation resulting in potentially significant construction impacts. Regional emissions resulting from operation of the Project would not exceed any SCAQMD daily significance thresholds, with impacts being less than significant. Implementation of the prescribed mitigation would reduce the Project's potentially significant construction-related impacts to a less than significant level.	Potentially significant	**Mitigation Measure AQ-1:** All off-road construction equipment with a horsepower (HP) greater than 50 shall be required to have USEPA certified Tier 4 interim engines or engines that are certified to meet or exceed the emission ratings for USEPA Tier 4 engines. In the event that all construction equipment cannot meet the Tier 4 engine certification, the applicant must demonstrate through future study that reductions in the daily NOx and $PM_{2.5}$ emissions can be achieved by other technologies/strategies so that emissions from all concurrent construction would not exceed applicable SCAQMD daily emission thresholds. Alternative measures may include, but would not be limited to: reduction in the number and/or horsepower rating of construction equipment, limiting the number of daily construction haul truck trips to and from the Specific Plan area, using cleaner vehicle fuel, and/or limiting the number of individual construction project phases occurring simultaneously.	Less than significant
CUMULATIVE POLLUTANT INCREASES - Impact Statement AQ-3: Implementation of the Project could result in a cumulatively considerable net increase of a criteria pollutant for which the region is non-attainment under applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). As the Project would have maximum daily construction emissions that exceed the thresholds for NOx, implementation of the Pepper Avenue Specific Plan could contribute incrementally to regional ozone and NO2 and would therefore result in potentially significant impacts. However, implementation of the prescribed mitigation measure would reduce the Project's construction-related impacts to a less than significant level, thereby precluding the Project from resulting in cumulatively considerable criteria pollutant increases in this regard during construction activities. Operation of the Project would result in emissions that would not cumulatively contribute to any criteria pollutant for which the region is non-attainment, therefore resulting in less than significant cumulative operational impacts.	Potentially significant	Refer to Mitigation Measure AQ-1.	Less than significant

Environmental Impact	Impact Level of Significance Before Mitigation	Mitigation Measures/Design Features	Impact Level of Significance after Mitigation
SENSITIVE RECEPTORS - Impact Statement AQ-4: Implementation of the Project could expose sensitive receptors to substantial pollutant concentrations during Project construction activities. Localized on-site construction emissions resulting from construction of Scenario 1 or Scenario 2 of the Project would exceed the SCAQMD localized significance threshold for PM2.5, without mitigation resulting in potentially significant construction impacts. Localized emissions resulting from operation of the Project would not exceed any SCAQMD localized significance thresholds, with impacts being less than significant. In addition, implementation of the Project would not expose off-site sensitive receptors to significant levels of toxic air contaminants or contribute to the formation of CO hotspots, resulting in less than significant impacts to sensitive receptors. Implementation of the prescribed mitigation would reduce the Project's potentially significant localized construction-related impacts to a less than significant level.	Potentially significant	Refer to Mitigation Measure AQ-1.	Less than significant
EXPOSURE TO OBJECTIONABLE ODORS - Impact Statement AQ-5: Implementation of the Specific Plan would not create objectionable odors affecting a substantial number of people. Future development pursuant to the Specific Plan consists of business park, residential and commercial uses that are not expected to be a source of off-site odor complaints. In addition, the Project is not located near any sources of odors identified by the SCAQMD handbook. Therefore, implementation of the Project would have a less than significant impact regarding objectionable odors.	Less than significant	No mitigation measures are necessary.	Less than significant
4.C Biological Resources			
SENSITIVE SPECIES - Impact Statement BIO-1: Implementation of the Project could result in a substantial adverse effect, either directly or through habitat modifications, on a species identified as a candidate, sensitive, or special status species, threatened or endangered in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Wildlife Service. Compliance with applicable regulatory requirements and implementation of the prescribed mitigation measures would reduce potentially significant impacts to a less than significant level.	Potentially significant	*Measures to Mitigate Potentially Significant Impacts to Special-Status Species:* **Mitigation Measure BIO-1:** Prior to and during construction within and adjacent to Riversidean alluvial fan sage scrub habitat the following measures shall be implemented to minimize temporary direct and indirect effects to special-status plant and wildlife species: • Construction limits shall be temporarily fenced prior to construction activities to avoid the inadvertent disturbance of areas adjacent to the construction limits. This fence shall be constructed as SBKR proof within alluvial fan sage scrub habitat (see Mitigation Measure BIO-2);	Less than significant

Environmental Impact	Impact Level of Significance Before Mitigation	Mitigation Measures/Design Features	Impact Level of Significance after Mitigation
		• A biological monitor shall be present during clearing and grubbing of the Project Site; • All movement of construction contractors, including ingress and egress of equipment and personnel, shall be limited to the designated construction zones; • Construction staging areas shall be located as far from the wash area as feasible; • The use or rodenticides, herbicides, insecticides, or other chemicals that could potentially harm special-status plant and animal species shall be prohibited; • The propose use and disposal of oil, gasoline, and diesel fuel shall be enforced; • Orientation meetings shall be conducted for construction personnel to review construction limits, conservation measures, and the locations of any listed species that must be avoided; and • Best Management Practices (BMPs) shall be implemented with a storm water pollution prevention plan to avoid and minimize impacts to biological resources outside of construction areas. **Mitigation Measure BIO-2**: Prior to construction within and adjacent to Riversidean alluvial fan sage scrub habitat the following design features shall be implemented to minimize long-term indirect effects to San Bernardino kangaroo rat (SBKR) and the Santa Ana River woollystar (SARWS): • The Project shall be designed to avoid Riversidean alluvial fan sage scrub habitat, where possible. • The pedestrian crossing shall be designed to minimize changes in the hydrology that could impact the ability of the SARWS to disperse or to establish in sandy soils created by scour, and also minimize the amount of habitat that could become less suitable for SBKR with reduced scour. • Water runoff from impervious surfaces shall be captured to ensure that the hydrological regime is not altered from the existing condition. Capturing the flows would also help reduce the number of road contaminants that enter the wash.	

Environmental Impact	Impact Level of Significance Before Mitigation	Mitigation Measures/Design Features	Impact Level of Significance after Mitigation
		• Temporary impact areas shall require a weed abatement program for approximately 5-years to ensure it remains suitable to SARWS and SBKR. *Measures to Mitigate Potentially Significant Impacts to Santa Ana River Woollystar:* **Mitigation Measure BIO-3:** Prior to any permanent or temporary direct impacts to the Santa Ana River woollystar (SARWS) and where avoidance of impacts through Project design is not possible, the following measures shall be implemented: • Seeds from all the SARWS proposed for impacts shall be collected from the Project Site and deposited at the Rancho Santa Ana Botanic Garden. The seeds shall be collected in September before the first sizeable rain event (i.e. one of ½ inch or more) to increase the ability to collect the seeds and to ensure a high rate of germination. • The Rancho Santa Ana Botanic Garden shall divide the seeds for three uses: 1) for a permanent seed bank; 2) for germination and growing seedlings; and 3) to preserve for later seeding or authorized research purposes. • The propagated seedlings and a portion of preserved seeds shall be replanted within any temporary impact areas once construction has ceased, and any permanent impacts to individual plants shall be replaced at a minimum 1:1 ratio within the proposed avoidance area (PA 9). Planting shall be conducted October to December or as close to the winter rainy season as possible. All replanting shall be conducted pursuant to an approved mitigation and monitoring plan prepared and overseen by a qualified biologist. The plan should include, at minimum, a map of the restoration areas, a description of any irrigation methodology, measures to control exotic vegetation, specific success criteria, a detailed monitoring program, contingency measures should the success criteria not be met, and identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. Monitoring of restoration areas should extend across a sufficient time frame to ensure that the new habitat is established, self-sustaining, and capable of	

Environmental Impact	Impact Level of Significance Before Mitigation	Mitigation Measures/Design Features	Impact Level of Significance after Mitigation
		surviving drought. *Measures to Mitigate Potentially Significant Impacts to San Bernardino Kangaroo Rat:* **Mitigation Measure BIO-4:** Prior to construction within San Bernardino Kangaroo Rat (SBKR) critical habitat, which consists of Riversidean Alluvial Fan Sage Scrub (RAFSS), the project applicant shall purchase mitigation credits from the Vulcan Materials mitigation land bank in Cajon Wash or equivalent preserved SBKR RAFSS habitat to offset permanent impacts to occupied SBKR critical habitat at a 3:1 ratio, and temporary or indirect impacts at a 1:1 ratio. **Mitigation Measure BIO-5:** Prior to construction within Riversidean alluvial fan sage scrub habitat the following measures shall be implemented to minimize temporary direct and indirect effects to San Bernardino kangaroo rat (SBKR): • A 4-foot high, 0.5-inch temporary steel mesh SBKR exclusionary fence shall be placed along the perimeter footprint where suitable SBKR habitat exists. The bottom of the exclusionary fence shall be buried below ground a minimum depth of 24 inches to minimize the potential that SBKR can re-enter the construction area and to preclude impacts to adjacent habitat. Trapping shall be conducted for SBKR within 30 days prior to ground disturbing activities. Any SBKR or other sensitive mammal species that are captured shall be relocated outside the exclusionary fencing. Trapping shall be conducted by a permitted biologist and according to protocol; • The temporary SBKR exclusionary fencing shall be maintained in place throughout the duration of construction in these areas to minimize take of SBKR during the construction phase and preclude the inadvertent disturbance of outlying areas by construction personnel. Access to SBKR habitat outside of the construction limits shall be prohibited and posted accordingly. The exclusionary fence shall be inspected weekly and repaired as necessary so that there are no gaps greater than 0.5 inch on any portion of the fence that could allow SBKR entry into the Project Site; • All the construction equipment shall meet applicable noise ordinances. Compliance with this requirement would minimize noise stress to SBKR in the vicinity of	

Environmental Impact	Impact Level of Significance Before Mitigation	Mitigation Measures/Design Features	Impact Level of Significance after Mitigation
		the Project Site; and • Contractor pets shall be prohibited in and adjacent to the construction area. **Mitigation Measure BIO-6**: Prior to construction within and adjacent to Riversidean alluvial fan sage scrub habitat the following design features shall be implemented to minimize long-term indirect effects to San Bernardino kangaroo rat (SBKR): • The pedestrian bridge supports shall be designed to minimize impacts to SBKR habitat and allow continued movement of SBKR. • Temporary impacts areas shall be revegetated with native shrub vegetation through container plantings to reestablish SBKR habitat and provide cover and facilitate movement of small mammals. All replanting shall be conducted pursuant to a mitigation and monitoring plan prepared and overseen by a qualified biologist. • To minimize light and noise pollution, no night lighting shall be directed into the open space areas and noise levels should not exceed City standards. *Mitigation for Potentially Significant Impacts to Burrowing Owl:* **Mitigation Measure BIO-7:** A protocol survey for burrowing owl shall be required during prior to any ground disturbing activities within disturbed and non-native grassland habitats. The surveys shall be conducted pursuant to the protocol provided as Appendix D of the Staff Report on Burrowing Owl Mitigation published by the California Department of Fish and Wildlife (CDFW) dated March 7, 2012. A qualified biologist, as defined in the CDFW Staff Report, shall conduct the surveys. Surveys shall preferably be conducted during the breeding season which requires 4 site visits, including at least one site visit between February 15 and April 15; and a minimum of three site visits at least three weeks apart between April 15 and July 15, with at least one visit after June 15. If burrowing owls are determined present during the focused survey, occupied burrows and habitat shall be avoided if feasible following the guidelines in the above referenced CDFW Staff Report. This includes, but is not limited to, avoiding direct or indirect destruction of burrows, implementing a worker awareness program, biological monitoring, establishing avoidance buffers, and flagging burrows for avoidance with visible markers. Avoidance measures shall be implemented under the direction of the qualified	

Environmental Impact	Impact Level of Significance Before Mitigation	Mitigation Measures/Design Features	Impact Level of Significance after Mitigation
		biologist. If occupied burrows or habitat cannot be avoided, appropriate compensation measures shall be determined by the qualified biologist in accordance with the guidelines detailed in the CDFW staff report and subject to approval by CDFW. This includes a Burrowing Owl Exclusion Plan for temporary or permanent exclusion of owls from occupied burrows, and/or a Mitigation Land Management Plan for permanent conservation of similar vegetation communities to provide for burrowing owl nesting, foraging, wintering and dispersal comparable to or of higher quality than the impact area.	
SENSITIVE HABITATS - Impact Statement BIO-2: Implementation of the Project could result in a substantial adverse effect on a sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. Compliance with applicable regulatory requirements and implementation of the prescribed mitigation measures would reduce potentially significant impacts to a less than significant level.	Potentially significant	Refer to Mitigation Measures BIO-1 to BIO-6. In addition, the following mitigation measure is prescribed: **Mitigation Measure BIO-8:** Prior to the issuance of any grading permit for permanent or temporary impacts in the areas designated as jurisdictional features, the project applicant shall obtain regulatory permits from the USACE, RWQCB, and CDFW, as applicable. The following shall be incorporated into the permitting, subject to approval by the regulatory agencies: 1. On-site and/or off-site creation, enhancement, and/or restoration of USACE/RWQCB jurisdictional "waters of the U.S."/"waters of the State" within the Santa Ana Watershed at a ratio no less than 1:1 or within an adjacent watershed at a ratio no less than 2:1 for permanent impacts, and for any temporary impacts to restore the impact area to pre-Project conditions (i.e., pre-Project contours and revegetate where applicable). Off-site mitigation may occur on land acquired for the purpose of in-perpetuity preservation, or through the purchase of mitigation credits at an agency-approved off-site mitigation bank. 2. On-site and/or off-site replacement and/or restoration of CDFW jurisdictional streambed and associated riparian habitat within the Santa Ana Watershed at a ratio no less than 2:1 or within an adjacent watershed at a ratio no less than 3:1 for permanent impacts, and for any temporary impacts to restore the impact area to pre-Project conditions (i.e., pre-Project contours and revegetate where applicable). Any off-site mitigation may occur on land acquired for the purpose of in-perpetuity preservation, or through the purchase of mitigation credits at an agency-approved off-site mitigation bank. 3. Any purchase of mitigation credits through an agency-	Less than significant

Environmental Impact	Impact Level of Significance Before Mitigation	Mitigation Measures/Design Features	Impact Level of Significance after Mitigation
		approved mitigation bank or in-lieu fee program shall occur prior to any impacts to jurisdictional drainages. If off-site mitigation is proposed on land acquired for the purpose of in-perpetuity mitigation that is not part of an agency-approved mitigation bank or in-lieu fee program shall include the preservation, creation, restoration, and/or enhancement of similar habitat pursuant to a Habitat Mitigation and Monitoring Plan (HMMP). A HMMP shall also be prepared for on-site mitigation. The HMMP shall be prepared prior to any impacts to jurisdictional features, and shall provide details as to the implementation of the mitigation, maintenance, and future monitoring. The goal of the mitigation shall be to preserve, create, restore, and/or enhance similar habitat with equal or greater function and value than the impacted habitat.	
WETLANDS – Impact Statement BIO-3: The Project could result in a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act. Compliance with applicable regulatory requirements and implementation of the prescribed mitigation measure would reduce potentially significant impacts to a less than significant level.	Potentially significant	Refer to Mitigation Measure BIO-8.	Less than significant
WILDLIFE CORRIDORS - Impact Statement BIO-4: Implementation of the Project would not 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. This impact is considered less than significant with mitigation incorporated.	Potentially significant	Refer to Mitigation Measures BIO-1 to BIO-7. In addition, the following mitigation measure is prescribed: **Mitigation Measure BIO-9:** Prior to the issuance of any grading permit that would remove potentially suitable nesting habitat for raptors or songbirds, the project applicant shall demonstrate to the satisfaction of the City of Rialto that either of the following have been or will be accomplished. 1. Vegetation removal activities shall be scheduled outside the nesting season (i.e., September 1 to February 14 for songbirds; September 1 to January 14 for raptors) to avoid potential impacts to nesting birds. 2. Any construction activities that occur during the nesting season (i.e., February 15 to August 31 for songbirds; January 15 to August 31 for raptors) would require that all suitable habitat be thoroughly surveyed for the presence of nesting birds by a qualified biologist before commencement of clearing. If any active nests are detected a buffer of 100 feet (300 feet for raptors) around the nest adjacent to construction, or as determined appropriate by the biologist, shall be delineated, flagged, and avoided until the nesting cycle is complete. An	Less than significant

Environmental Impact	Impact Level of Significance Before Mitigation	Mitigation Measures/Design Features	Impact Level of Significance after Mitigation
		appropriate buffer shall be determined by the biological monitor to minimize impacts to the nesting bird(s) accounting for factors such as the species, type of construction activities, in addition to habitat and topography that may provide natural sound attenuation. The buffer may be modified and/or other recommendations proposed as determined appropriate by the biologist to minimize impacts.	
POLICY CONSISTENCY - Impact Statement BIO-5: The Project would be consistent with local policies to conserve and enhance biological resources within the City. Implementation of the prescribed mitigation measures would ensure compliance with the City's policies and, therefore, less than significant impacts would occur.	Potentially significant.	Refer to Mitigation Measures BIO-1 to BIO-9.	Less than significant
CONSERVATION PLAN CONSISTENCY - Impact Statement BIO-6: There is no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan with which the Project would conflict. No impact would occur in this regard.	No impact	No mitigation measures are necessary.	No Impact
4.D Cultural Resources			
HISTORICAL ROURCES - Impact Statement CuI-1: Implementation of the Project would not cause a substantial adverse change in the significance of a historical resource as defined in §15064.5. No impacts would occur in this regard.	No impact	No mitigation measures are necessary.	No impact
ARCHEOLOGICAL RESOURCES - Impact Statement CUL-2: Implementation of the Project could cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5. This impact is considered potentially significant. However, implementation of the prescribed mitigation would reduce potentially significant impacts to archaeological resources to a less than significant level.	Potentially significant	**Mitigation Measure CUL-1**: Conduct a Phase I Archaeological/Historical Resources Assessment. For specific development proposals that are initiated under the Project that require excavation (e.g., clearing/grubbing, grading, trenching, or boring) or demolition activities, the City shall require Phase I Archaeological Resources Assessments on a project-by-project basis within the Specific Plan area to identify any archaeological resources within the footprint or immediate vicinity. The level of effort for a Phase I assessment shall include a Sacred Lands File search through the California Native American Heritage Commission (NAHC) and a full-coverage pedestrian survey of the Project Site. In addition, the assessment shall include a review available geotechnical studies, site plans, and drilling/grading studies to determine the nature and depth of the construction activities to assist in determining the depths of fill versus native soils across the improvement footprint. If no resources are identified as a result of the pedestrian survey, it does not preclude	Less than significant

Environmental Impact	Impact Level of Significance Before Mitigation	Mitigation Measures/Design Features	Impact Level of Significance after Mitigation
		the existence of buried resources within the improvement footprint. If this is the case, a qualified archaeologist shall determine the potential for the Project to encounter buried resources during construction based on the results of the record searches, depth of native versus fill soils, and proposed excavation parameters. The following scenarios shall be followed depending on the results of the Phase I assessment: • If resources are identified during the Phase I assessment, then a Phase II evaluation shall be required, as described in CUL-2. • If no resources are identified as part of the assessment, no further analyses or mitigation shall be warranted, unless it can be determined that the project has a moderate to high potential to encounter buried archaeological resources. • If it is determined that there is a moderate or high potential to encounter buried archaeological resources, appropriate mitigation such as construction monitoring shall be required as described in CUL-4, -5, and -6. **Mitigation Measure CUL-2:** Conduct a Phase II Archaeological/Historical Resources Evaluation. If resources are identified during the Phase I assessment, a Phase II Archaeological Resources Evaluation may be warranted if impacts from the improvements cannot be avoided. The Phase II assessment shall evaluate the resource(s) for listing in the California Register and to determine whether the resource qualifies as a "unique archaeological resource" pursuant to CEQA. If enough data is obtained from the Phase I assessment to conduct a proper evaluation, a Phase II evaluation may not be necessary. Methodologies for evaluating a resource can include, but are not limited to: subsurface archaeological test excavations, additional background research, property history research, and coordination with Native Americans and other interested individuals in the community. **Mitigation Measure CUL-3:** Conduct a Phase III Assessment if Resources are Eligible. If, as a result of the Phase II evaluation, resources are determined eligible for listing in the California Register or are considered "unique archaeological resources" pursuant to Section 21083.2 of the Public Resources Code, potential impacts to the resources shall be analyzed and if impacts are significant (i.e., the improvement will cause a "substantial adverse change" to the resource) and cannot be avoided,	

Environmental Impact	Impact Level of Significance Before Mitigation	Mitigation Measures/Design Features	Impact Level of Significance after Mitigation
		mitigation measures shall be developed and implemented, such as archaeological data recovery excavations to reduce impacts to the resources to a level that is less than significant **Mitigation Measure CUL-4:** Conduct Archaeological and Native American Construction Monitoring. If it is determined by the qualified archaeologist preparing the Phase I Archaeological Resources Assessment that: 1) there is a moderate or high potential to encounter buried archaeological resources; and 2) that construction monitoring is required during construction excavations such as clearing/grubbing, grading, trenching, or any other construction excavation activity associated with the proposed improvements, then the City shall require future development/Project applicants on a project-by-project basis within the Specific Plan area to retain a qualified archaeological monitor and/or Native American monitor who shall be present during construction excavation activities. The frequency of monitoring shall be based on the rate of excavation and grading activities, proximity to known archaeological resources, the materials being excavated (native versus fill soils), and the depth of excavation, and if found, the abundance and type of archaeological resources encountered. Full-time monitoring can be reduced to part-time inspections if determined adequate by the archaeological monitor. **Mitigation Measure CUL-5**: Cease Ground-Disturbing Activities and Implement Treatment Plan if Archaeological Resources Are Encountered. In the event that archaeological resources are unearthed during ground-disturbing activities, the archaeological monitor shall be empowered to halt or redirect ground-disturbing activities away from the vicinity of the find so that the find can be evaluated. Work shall be allowed to continue outside of the vicinity of the find. All archaeological resources unearthed by Project construction activities shall be evaluated by the archaeologist. The Applicant and City shall coordinate with the archaeologist and Native American monitor (if the resources are prehistoric in age) to develop an appropriate treatment plan for the resources. Treatment may include implementation of archaeological data recovery excavations to remove the resource or preserve it in place. The Applicant, in consultation with the archaeologist and Native American monitor (if the resources are prehistoric in age), shall designate repositories in the event that archaeological material is recovered. **Mitigation Measure CUL-6:** Prepare Archaeological Monitoring Report. The archaeological monitor shall prepare a final report at	

Environmental Impact	Impact Level of Significance Before Mitigation	Mitigation Measures/Design Features	Impact Level of Significance after Mitigation
		the conclusion of archaeological monitoring. The report shall be submitted to the City and the San Bernardino Archaeological Information Center, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the project and required mitigation measures. The report shall include a description of resources unearthed, if any, evaluation of the resources with respect to the California Register of Historical Resources and CEQA, and treatment of the resources.	
PALEONTOLOGICAL RESOURCES - Impact Statement CUL-3: Implementation of the Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. No impacts would occur in this regard.	No impact	No mitigation measures are necessary	No impact
HUMAN REMAINS - Impact Statement CUL-4: Implementation of the Project could disturb human remains, including those interred outside of formal cemeteries. However, implementation of the prescribed mitigation would reduce potentially significant impacts to unknown human remains to a less than significant level.	Potentially significant	Refer to Mitigation Measures CUL-1 to CUL-3. In addition, the following mitigation measure is prescribed: **Mitigation Measure CUL -7:** Cease Ground-Disturbing Activities and Notify County Coroner If Human Remains Are Encountered. If human remains are unearthed during construction exaction activities, the construction contractor shall comply with State Health and Safety Code Section 7050.5. The contractor and Project applicant shall immediately notify the County Coroner and no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the NAHC. The NAHC shall then identify the person(s) thought to be the Most Likely Descendent (MLD). The MLD may, with the permission of the landowner, inspect the site of the discovery of the Native American remains and may recommend to the landowner means for treating or disposing, with appropriate dignity, the human remains and any associated funerary objects. The MLD shall complete their inspection and make their recommendation within 48 hours of being granted access by the landowner to inspect the discovery. The recommendation may include the scientific removal and nondestructive analysis of human remains and cultural items associated with Native American burials. Upon the discovery of the Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this mitigation measure, with the MLD regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The landowner shall	Less than significant

Environmental Impact	Impact Level of Significance Before Mitigation	Mitigation Measures/Design Features	Impact Level of Significance after Mitigation
		discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment. MLDs in the region typically recommend reburial of the remains as close to the original burial location as feasible accompanied by a ceremony. The MLD shall file a record of the reburial with the NAHC and the Project archaeologist shall file a record of the reburial with the CHRIS-SBAIC. If the NAHC is unable to identify a MLD, or the MLD identified fails to make a recommendation, or the landowner rejects the recommendation of the MLD and the mediation provided for in Subdivision (k) of Section 5097.94, if invoked, fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall inter the human remains and items associated with Native American human remains with appropriate dignity on the facility property in a location not subject to further and future subsurface disturbance. A record of the reburial shall be filed with the NAHC and the CHRIS-SBAIC.	
TRIBAL CULTURAL RESOURCES - Impact Statement CUL-5: Implementation of the Project could cause a substantial adverse change in the significance of a tribal resource as defined in Public Resources Code Section 21074. This impact is considered potentially significant. However, implementation of the prescribed mitigation would reduce potentially significant impacts to tribal cultural resources to a less than significant level.	Potentially significant	**Mitigation Measure CUL-8:** If a tribe formally requests, in writing, to be notified of future specific development proposals that are initiated under the Project, the City shall begin AB 52 consultations with those particular tribes for all future development proposals within the Project Site. The purpose of those consultations would be to identify, evaluate, and mitigate impacts to tribal cultural resources from a given development proposal.	Less than significant
4.E Greenhouse Gas Emissions			
GHG EMISSIONS - Impact Statement GHG-1: The Project would generate GHG emissions due to construction and operational activities; however, the net increase in annual GHG emissions, directly and indirectly, would be consistent with the City of Rialto GHG reduction measures and SBC Reduction Plan. Therefore, as the Project would be consistent with the applicable City's goals and actions for GHG emissions, GHG emissions and associated impacts would be less than significant.	Less than significant	No mitigation measures are necessary.	Less than significant

Environmental Impact	Impact Level of Significance Before Mitigation	Mitigation Measures/Design Features	Impact Level of Significance after Mitigation
GREENHOUSE GAS REDUCTION PLANS -Impact Statement GHG-2: The Project would be consistent with the AB 32 goals and CARB guidelines for assessing GHG emissions. Further, the Project would include land use characteristics and design strategies that would be consistent with State, Regional, and Local Regulations for reducing GHG emissions. Therefore, as the Project would be consistent with applicable plans, policies and regulations adopted for the purpose of reducing GHG emissions, impacts regarding greenhouse gas reduction plans would be less than significant.	Less than significant	No mitigation measures are necessary.	Less than significant
4.F Land Use and Planning			
CONSISTENCY WITH APPLICABLE PLANS AND POLICIES - Impact Statement LU-1: Implementation of the proposed Pepper Avenue Specific Plan would not conflict with applicable land use plans, policy, or regulation of an agency with jurisdiction over the project, including California Government Code 65450, SCAG policy documents, the City of Rialto General Plan, and the City's Zoning Ordinance, adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, land use impacts are considered less than significant.	Less than significant	No mitigation measures are necessary.	Less than significant
4.G Noise			
CONSTRUCTION NOISE - Impact Statement Noise-1: Construction activities associated with Project implementation would be conducted within the allowable hours specified in the City's Municipal Code. Compliance with the requirements of the City's Municipal Code would ensure that construction noise impacts are less than significant.	Less than significant	No mitigation measures are necessary.	Less than significant
OPERATIONAL NOISE - Impact Statement Noise-2: The Project's noise impacts on existing development from operational on-site stationary noise sources would be less than significant. Project operational traffic would increase ambient noise levels at off-site noise-sensitive uses in the Project area; however, the increases would not exceed the established thresholds. Operational traffic-related noise impacts would be less than significant. Potential future residences could be exposed to traffic-related noise levels that would exceed thresholds. However, implementation of the prescribed mitigation measure would ensure this potentially significant noise impact is reduced to a less than significant level. *Cumulative noise due to roadway traffic would fall on noise-sensitive land uses within an area categorized as either "normally*	Potentially Significant	**Mitigation Measure NOISE-1**: Prior to approval of design review permits for sensitive uses, to reduce and/or ensure exterior noise levels are at or below 65 CNEL at potential outdoor sensitive uses (i.e., residential courtyards, parks, and passive recreation areas) proposed by the Specific Plan, a combination of sound barrier walls, earthen berms, and landscaping shall be designed and implemented by a qualified acoustical consultant, as necessary. Alternatively, outdoor uses shall be located behind buildings (not facing traffic corridors) in a manner that shields outdoor sensitive uses from roadway noise and reduces the exterior noise level to 65 CNEL or below. Also, an acoustical engineer shall submit evidence, along with the application for a building permit, any design plans or features of sound insulation sufficient to mitigate interior noise levels below a CNEL of 45 dBA in any habitable	Significant and unavoidable *(Cumulative traffic noise impact only)*

Environmental Impact	Impact Level of Significance Before Mitigation	Mitigation Measures/Design Features	Impact Level of Significance after Mitigation
incompatible" or "clearly incompatible." Therefore, impacts would be significant.		room. *Mitigation Measure NOISE-1 does not apply to off-site noise sensitive receptors and does mitigate off-site significant cumulative traffic noise impacts.*	
VIBRATION - Impact Statement Noise-3: Construction activities would result in sporadic, temporary vibration effects adjacent to the Project Site, which would not exceed established thresholds. Thus, construction vibration impacts would be less than significant.	Less than significant	No mitigation measures are necessary.	Less than significant
HUMAN ANNOYANCE - Impact Statement Noise-4: Project operation would not generate excessive vibration levels at nearby sensitive receptor locations. Thus, long-term vibration impacts would be less than significant.	Less than significant	No mitigation measures are necessary.	Less than significant
4.H Transportation			
TRAFFIC - Impact Statement traf-1: With implementation of the prescribed mitigation measure and the Project's applicable design features, potentially significant traffic impacts would be reduced to a less than significant level. Thus, implementation of the Project under Existing Plus Project, Opening Year (2017), and Long Range (2035) conditions would not substantially 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 and freeways, pedestrian and bicycle paths, and mass transit.	Potentially significant	**Mitigation Measure TRAF-1 -** Prior to issuance of building permits, future Project applicant(s) shall participate in the City of Rialto Development Impact Fee (DIF) Program by paying applicable fees, supplemented by participation in additional fair share intersection improvement costs as needed. Such fees shall be determined by additional and/or focused traffic impact studies, as determined necessary by the City of Rialto Traffic Engineering Division, prior to future development occurring within the Specific Plan Area. Payment of fees to these fee programs may be considered as mitigation for the Project's proportionate share of cumulative impacts. If the City finds that the payment of DIF fees alone do not adequately address the Project's proportionate share, a fair share contribution may be imposed in order to mitigate the Project's share of cumulative impacts. Improvements constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate (to be determined at the City's discretion). The improvements identified below shall be funded by the Project's proportionate payment of fees, as determined necessary by the City of Rialto Traffic Engineering Division. The City shall ensure that the improvements will be constructed pursuant to the fee program at the point in time necessary to avoid identified significant traffic impacts. Riverside Avenue/Easton Street (Intersection #3): • Participate in the signal modification to provide separate right turn overlap signal phasing for the existing westbound right turn lane.	Less than significant

Environmental Impact	Impact Level of Significance Before Mitigation	Mitigation Measures/Design Features	Impact Level of Significance after Mitigation
		Eucalyptus Avenue/Baseline Road (Intersection #8): • Northbound Approach: Provides separate left turn lane, in addition to the existing through lane. • Southbound Approach: Provide separate left turn lane, in addition to the existing through lane. Pepper Avenue/Highland Avenue (Intersection #9): • Northbound Approach: Restripe through lane to shared through-right lane, in addition to the left turn lane and right turn lane. • Eastbound Approach: Participate in the signal modification to provide separate right turn overlap signal phasing for the right turn lane. Pepper Avenue/SR-210 Westbound Ramps (Intersection #10): • Northbound Approach: Modify traffic signal to provide north/south split phase. restripe first through lane to provide a left-through lane, in addition to the left turn lane and second through lane. • Westbound Approach: Provide additional (second) left turn lane. Pepper Avenue/SR-210 Eastbound Ramps (Intersection #11): • Northbound Approach: Provide separate right turn lane. • Eastbound Approach: Provide additional (second) right turn lane. Pepper Avenue/Winchester Drive (Intersection #12): • Participate in construction of a traffic signal. • Northbound Approach: Provide separate left turn lane and second through lane, eliminating defacto right turn lane. • Southbound Approach: Provide separate left turn lane and second through lane, eliminating defacto right turn lane. Pepper Avenue/Mariposa Drive (Intersection #13): • Participate in construction of a traffic signal.	

Environmental Impact	Impact Level of Significance Before Mitigation	Mitigation Measures/Design Features	Impact Level of Significance after Mitigation
		• Northbound Approach: Provide separate left turn lane and second through lane, eliminating defacto right turn lane. • Southbound Approach: Provide separate left turn lane and second through lane, eliminating defacto right turn lane. <u>Pepper Avenue/Baseline Road (Intersection #14):</u> • SB Approach: Provide separate right turn lane. <u>Pepper Avenue/Etiwanda Avenue (Intersection #15):</u> • Participate in construction of a traffic signal. <u>Pepper Avenue/Foothill Boulevard (Intersection #16):</u> • Participate in the signal modification to provide separate right turn overlap signal phasing for the existing eastbound right turn lane. • Southbound Approach: Provide separate right turn lane. • Westbound Approach: Provide additional (third) through lane. *The following design features are also applicable to minimizing traffic-related impacts during construction activities and long-term operation:* **DF SERVICE-1:** <u>Construction Management Plan</u> – A construction management plan shall be developed by the applicant or contractor of each future developments proposed within the Specific Plan area and approved by the City of Rialto Public Works Department prior to construction activities. The construction management plan shall include, at a minimum, the following: • Identify the locations of the off-site truck staging and provide measures to ensure that trucks use the specified haul route, as applicable, and do not travel through nearby residential neighborhoods or schools; • Schedule vehicle movements to ensure that there are no vehicles waiting off-site and impeding public traffic flow on surrounding streets; • Establish requirements for loading/unloading and storage of materials on the Project Site;	

Environmental Impact	Impact Level of Significance Before Mitigation	Mitigation Measures/Design Features	Impact Level of Significance after Mitigation
		• Coordinate with the City and emergency service providers to ensure adequate access is maintained to and around the Project Site; and • During construction activities when construction worker parking cannot be accommodated on the Project Site, a Construction Worker Parking Plan shall be prepared which identifies alternate parking location(s) for construction workers and the method of transportation to and from the Project Site (if beyond walking distance) for approval by the City. The Construction Worker Parking Plan shall prohibit construction worker parking on residential streets and prohibit on-street parking, except as approved by the City. **Design Feature DF TRAF-1**: Pepper Avenue / Northerly Right-In/Right-Out (RIRO) Driveway – Install stop sign control on the EB approach, design the intersection to restrict left-in access to the Project driveway and left-out access from the Project driveway, and construct the intersection with the following geometrics: • NB Approach: Provide two through lanes. • SB Approach: Provide one through lane and one shared through-right turn lane. • EB Approach: Provide a right turn lane. **Design Feature DF TRAF-2:** Pepper Avenue / Main Driveway (intersection #23) – Install traffic signal control and construct the intersection with the following geometrics: • NB Approach: Provide one left turn lane, one through lane, and one shared through right lane. • SB Approach: Provide two left turn lanes, one through lane, and one shared through right lane. • EB Approach: Provide one left turn lane and one shared through-right lane. • WB Approach: Provide one left turn lane, one through lane, and one right turn lane. **Design Feature DF TRAF-3:** Pepper Avenue / Southerly RIRO Driveway – Install stop sign control on the EB approach, design the intersection to restrict left-in access to the Project driveway and left-out access from the Project driveway, and construct the	

Environmental Impact	Impact Level of Significance Before Mitigation	Mitigation Measures/Design Features	Impact Level of Significance after Mitigation
		intersection with the following geometrics: • NB Approach: Provide two through lanes. • SB Approach: Provide one through lane and one shared through-right turn lane. • EB Approach: Provide a right turn lane. **Design Feature DF TRAF-4:** Pepper Avenue / South Driveway (intersection #24) – At complete build-out, or as otherwise determined by traffic needs, install traffic signal control and construct the intersection with the following geometrics: • NB Approach: Provide one through lane and one shared through-right lane. • SB Approach: Provide one left turn lane and two through lanes. • WB Approach: Provide one left turn lane, and one right turn lane.	
CONGESTION MANAGEMENT - Impact Statement TRAF-2: Implementation of the Project would not 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 management agency for designated roads or highways. This impact would be less than significant.	Less than significant	No mitigation measures are necessary.	Less than significant
TRAFFIC HAZARDS - Impact Statement TRAF-3: Implementation of the Project would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections). This impact would be less than significant.	Less than significant	No mitigation measures are necessary. Refer also to DF TRAF-1 to DF TRAF-4.	Less than significant
PLAN AND POLICY CONSISTENCY - Impact Statement TRAF-4: Implementation of the Project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. This impact would be less than significant.	Less than significant	No mitigation measures are necessary.	Less than significant

CHAPTER 1
Introduction

A. Purpose of the Draft EIR

The City of Rialto (the City) is the Lead Agency under the California Environmental Quality Act (CEQA) responsible for preparing the EIR for the proposed Pepper Avenue Specific Plan (the Project or Specific Plan) (State Clearinghouse No. 2016021047**).** This EIR has been prepared in conformance with CEQA (California Public Resources Code Section 21000 et seq.), and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.). The principal CEQA Guidelines sections governing content of this document are Sections 15120 through 15132 (Content of an EIR).

In accordance with Section 15121 of the CEQA Guidelines, a primary purpose of this EIR is to provide decision-makers and the public with specific information regarding the environmental effects associated with the Project, identify ways to minimize the significant effects and describe reasonable alternatives to the Project. Mitigation measures are provided in order to reduce the significance of impacts resulting from the Project, as are alternatives to the Project. In addition, this EIR is the primary reference document in the formulation and implementation of a mitigation monitoring program for the Project.

The City, which has the principal responsibility of processing and approving the Project, will use and consider information in this EIR, along with other information that may be presented during the CEQA process, during the decision to approve, disapprove, or modify the Project. Significant environmental impacts cannot always be mitigated to a level considered less than significant; in those cases, impacts are considered significant and unavoidable. In accordance with Section 15093(b) of the CEQA Guidelines, if a public agency approves a project that has significant impacts that are not substantially mitigated (i.e., significant unavoidable impacts), the agency shall state in writing the specific reasons for approving the project, based on the Final EIR and any other information in the public record for the project. This is termed, per Section 15093(b) of the CEQA Guidelines, a "statement of overriding considerations."

This document analyzes the environmental effects of the Project to the degree of specificity appropriate to the current proposed actions, as required by Section 15146 of the CEQA Guidelines. This analysis considers the actions associated with the Project, to determine the short-term and long-term effects associated with their implementation. This EIR discusses both the direct and indirect impacts of this Project, as well as the cumulative impacts associated with other past, present, and reasonably foreseeable future projects. CEQA requires the preparation of an objective, full disclosure document to inform agency decision makers and the general public of

the direct and indirect environmental effects of the Project; provide mitigation measures to reduce or eliminate significant adverse effects; and identify and evaluate reasonable alternatives to the Project that can reduce or eliminate significant adverse effects of the Project.

B. Program EIR

The Project is subject to a program EIR because the Pepper Avenue Specific Plan constitutes a series of actions that can be characterized as one large project that is related: "a) geographically; b) as logical parts in a chain of contemplated actions; and c) in connection with the issuance of…plans…to govern the conduct of a continuing program…" (CEQA Guidelines 15168[a]). A program EIR generally establishes a foundation for "tiered" or project-level environmental documents that may be subsequently prepared in accordance with the overall program. According to CEQA Guidelines Section 15168(b), a program EIR can provide the following advantages:

1. Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action;
2. Ensure consideration of cumulative impacts that might be slighted in a project-level analysis;
3. Avoid duplicative reconsideration of basic policy considerations;
4. Allow the lead agency to consider broad policy alternatives and program-wide mitigation measures at the earliest possible time when the agency has greater flexibility to deal with basic problems or cumulative impacts; and
5. Allow a reduction in paperwork.

The Program EIR analyzes, at a general level, the maximum extent of potential development scenarios within the Project Site, policies and management actions. In this way, decision-makers and the public can get a sense of the overall physical effects of the whole Project. The purpose of the Program EIR is to focus attention to those aspects of a future project (often a long-range plan) that could bring about adverse physical impacts. A Program EIR in this way serves as a foundation for subsequent environmental documentation and/or clearance. CEQA Guidelines Section 15146 indicates that "the degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR."

The Program EIR identifies and analyzes the potential environmental impacts of the program-wide policies and management actions presented in the Specific Plan, and proposes mitigation measures to reduce impacts determined to be significant. With the Program EIR, the City and the public will be able to consider the Project in its entirety and the impacts of associated with policies and management actions in the Specific Plan, some of which might be overlooked if considered on a case-by-case basis. The Program EIR also allows for consideration of broad policy alternatives and their possible environmental effects in a more exhaustive manner than would otherwise be possible. Optimally, this process allows for development of program-wide mitigation measures at a stage when the City has greater flexibility to deal with basic problems or cumulative environmental impacts, and provides an opportunity to reduce paperwork. Program-level analysis differs from project-level analysis, which is based on evaluation of architectural plans for construction of a given.

Tiering refers to using the analysis of general matters contained in a broader EIR (such as one prepared for a general plan or specific plan) with later environmental documents on narrower projects, incorporating by reference the general discussions from the broader EIR. Where a Lead Agency is using the tiering process in connection with an EIR for a large-scale planning approval, such as a specific plan, the development of detailed, site-specific information may not be feasible but can be deferred, in many instances, until such time as the Lead Agency prepares a future environmental document in connection with a project of a more limited geographical scale, as long as deferral does not prevent adequate identification of significant effects of the planning approval at hand. The approval of the Specific Plan itself would not directly result in any specific development project. However, the environmental analysis and mitigation measures provided within Chapter 4.0, Environmental Impact Analysis, have been prepared utilizing a programmatic approach under CEQA, intended to provide the opportunity for tiering (per Section 15152 of the CEQA Guidelines) when future development applications are received. As a Program EIR, it should be understood that certain of the impacts identified, and the mitigation measures recommended in this document, are inherently limited in their specificity. As such, subsequent and more focused environmental review may take place based on evaluation of individual project proposals if they have the potential to result in impacts that are not adequately addressed and mitigated in this Program EIR. With subsequent environmental review, this Program EIR will be used as the basis for Initial Study determinations of impact significance, to focus subsequent project review, if required, on only those effects not adequately considered before, and to incorporate relevant information and analysis by reference.

C. EIR Scoping Process

In compliance with the CEQA Guidelines, the City has provided opportunities for the public to participate in the environmental review process. During the preparation of the Draft EIR, an effort was made to contact various federal, State, regional, and local government agencies and other interested parties to solicit comments and inform the public of the proposed project. This included the distribution of an Initial Study and Notice of Preparation (NOP), and the holding of a public scoping meeting.

1. Initial Study

In accordance with Section 15063(a) of the CEQA Guidelines, the City undertook the preparation of an Initial Study. The Initial Study determined that of the following environmental issue areas may be significantly impacted by Project and should be further evaluated in this Draft EIR:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Greenhouse Gas Emissions
- Land Use and Planning
- Noise
- Transportation/Traffic

Based on the Initial Study, issues for which no or less than significant impacts are anticipated to occur are identified in Chapter 6, Other Environmental Considerations, of this EIR.

2. Notice of Preparation

Pursuant to the provision of Section 15082 of the CEQA Guidelines, the City circulated a NOP to public agencies, special districts, and members of the public for a 30-day period commencing January 25, 2016 and ending February 19, 2016. The purpose of the NOP was to formally convey that the City is preparing a Draft EIR for the Project, and to solicit input regarding the scope and content of the environmental information to be included in the EIR. The Initial Study was circulated with the NOP. The NOP, Initial Study, and responses to the NOP are provided in Appendix A, Initial Study/Notice of Preparation/NOP Comment Letters.

3. Public Scoping Meeting

The City advertised a notice of public scoping meeting for the Project, which was held on Thursday, February 4, 2016 at Frisbie Middle School located at 1442 N. Eucalyptus Avenue in the City of Rialto. The meeting was held with the specific intent of affording interested individuals/groups and public agencies to assist the lead agency in determining the scope and focus of the EIR as described in the NOP and Initial Study.

4. Comments Received

The NOP/Initial Study was distributed to various public agencies, other entities, and members of the public in order to receive input on the scope and content of environmental information to be provided in this EIR. Comments were received from the Riverside Highland Water Company (RHWC), West Valley Water District (WVWD), Rialto Unified School District (RUSD),San Bernardino County Department of Public Works (SBCDWP), the Southern California Association of Governments (SCAG), the California Governor's Office of Planning and Research (OPR), the California Department of Fish and Wildlife (CDWF), the California Department of Fish and Wildlife (CDFW), the California Department of Transportation (Caltrans), as well as two private entities including BBC Properties, LLC, and Gresham/Savage Attorneys at Law. The NOP comments are contained in Appendix A and summarized in the Executive Summary under the "Areas of Controversy and Issues to be Resolved" subheading.

D. Format of the Draft EIR

This Draft EIR includes eight chapters as well as appendices, which are organized as follows:

Executive Summary. This section presents a summary of the Project and alternatives, potential impacts and mitigation measures, and impact conclusions regarding significant unavoidable adverse impacts and effects not found to be significant.

1. **Introduction**. This chapter provides: background information on the Project; describes the purpose of the EIR; approach of the EIR; provides CEQA compliance information relative to

the Project and the EIR; provides a brief overview of the environmental review process; identifies areas of controversy and issues to be resolved in the EIR; and outlines the organization of the EIR.

2. **Project Description**. This chapter describes the Project location, Project details and the City's overall objectives for the Project.

3. **Basis for Cumulative Analysis**. This chapter provides a list and map of related projects anticipated to be built within the Project vicinity. The related projects serve as the basis for the cumulative analysis.

4. **Environmental Impact Analysis**. This chapter contains an analysis of the following environmental issues based on the findings in the Initial Study and Scoping process: (A) Aesthetics; (B) Air Quality; (C) Biological Resources; (D) Cultural Resources; (E) Greenhouse Gas Emissions/Global Climate Change; (F) Land Use/Planning; (G) Noise; and (H) Transportation/Traffic. Each section describes the regulatory and physical settings and evaluates the environmental impacts and cumulative impacts of each environmental issue area. If necessary, mitigation measures are provided and each section provides a summation of the level of significance after mitigation for each of the environmental issues.

5. **Alternatives**. This chapter evaluates the environmental effects of the Project alternatives, including the No Project Alternative, the Reduced Density Alternative, and the Existing Zoning Alternative. It also identifies the Environmentally Superior Alternative.

6. **Other CEQA Considerations**. This chapter includes a discussion of issues required by CEQA that are not covered in other chapters. These include unavoidable adverse impacts, impacts found not to be significant, irreversible environmental changes, potential secondary effects caused by the implementation of the mitigation measures for the Project, and growth inducing impacts.

7. **References**. This chapter lists all of the references and sources used in the preparation of the document.

8. **List of Preparers**. This chapter lists all of the persons, public agencies, and organizations that were consulted or contributed to the preparation of this EIR.

This EIR includes the environmental analysis prepared for the project and appendices as follows:

Appendix A: Initial Study/Notice of Preparation/NOP Comment Letters

Appendix B: Air Quality Technical Appendix

Appendix C: Biological Resources Assessment

Appendix D: Cultural Resources Assessment

Appendix E: GHG Technical Appendix

Appendix F: Noise Technical Appendix

Appendix G: Traffic Impact Analysis

Appendix H: Energy Calculations

E. Public Review of the Draft EIR

The Draft EIR is subject to a 45-day review period by responsible and trustee agencies and interested parties. In accordance with the provision of Sections 15085(a) and 15087(a)(1) of the CEQA Guidelines, the City, serving as the Lead Agency will: 1) distribute a Notice of Availability of a Draft EIR to affected public agencies and other interested parties, which states that the Draft EIR will be available for review at: City of Rialto, Planning Department, 150 S. Palm Avenue, Rialto, California 92376; and at the Rialto Library located at 251 W. First Street, Rialto, California 92376; 2) prepare and transmit a Notice of Completion (NOC) to the State Clearinghouse; and 3) send notices to the last known name and address of all organizations and individuals who have previously requested such notice in writing. All comments on the Draft EIR should be addressed to:

ATTN: Gina Gibson
City of Rialto
Planning Division
150 South Palm Avenue
Rialto, California 92376

Or via email to: ggibson@rialtoca.gov

Any public agency or members of the public desiring to comment on the Draft EIR must submit their comments in writing to Ms. Gibson prior to the end of the public review period. Upon the close of the public review period, the City will then proceed to evaluate and prepare responses to all relevant written comments received from both citizens and public agencies during the public review period.

The Final EIR will consist of the Draft EIR, and revisions to the Draft EIR and responses to comments addressing concerns raised by responsible agencies or reviewing parties. After the Final EIR is completed and at least 10 days prior to its certification, a copy of the response to comments made by public agencies on the Draft EIR will be provided to the respective agency.

F. Incorporation by Reference

In accordance with CEQA Guidelines, Section 15150, this Program EIR incorporates by reference the following documents (available for review at the City of Fontana, Planning Department).

City of Rialto Municipal Code (Title 18) – Title 18 (Zoning Code) of the of City of Rialto Municipal Code prescribes and restricts what landowners can do with their properties and includes standards for the allowed uses of land; building size, shape, and placement; basic architectural and landscape guidelines; and, performance.

City of Rialto General Plan, 2010 – The City of Rialto General Plan identifies goals and objectives to implement the community's vision over the next 20 to 30 years. The community's vision statement is based on four guiding principles: (i) Rialto is a "family first" community; (ii) Rialto shall attract high-quality new development and improve its physical environment; (iii) Rialto's economic environment is healthy and diverse; and (iv)Rialto is an active community. The General Plan comprises six elements, including Land Use, Conservation, Economic Development, Circulation, Safety and Noise, and Housing, applicable to the Pepper Avenue Specific Plan.

City of Rialto Pepper Avenue Specific Plan, 2016 – The Pepper Avenue Specific Plan provides a detailed description of the proposed land uses, infrastructure and implementation requirements for the Pepper Avenue Specific Plan project. The Specific Plan design guidelines are intended to assist in creating architectural themes and landscape character for future development. The development standards will establish permitted uses, setbacks and general development criteria. The Specific Plan is expected to be adopted by resolution with the exception of Chapter 5.0, Development Standards, which will be adopted by ordinance and serve as the zoning for the Specific Plan.

Southern California Association of Governments (SCAG) 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Draft Program EIR, 2011 – The SCAG 2012-2035 RTP/SCS Draft Program EIR analyzes the effects of implementation of SCAG's 2012-2035 RTP/SCS. The 2012-2035 RTP/SCS is a long-range regional transportation plan that provides a blueprint to help achieve a coordinated and balanced regional transportation system in the SCAG region. The SCAG region is comprised of six counties: Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The SCAG 2012-2035 RTP/SCS Draft Program EIR serves as an informational document to inform decision makers and the public of the potential environmental consequences of approving the proposed RTP/SCS. The document includes an evaluation of a wide range of environmental impacts of the project, and also provides mitigation measures and project alternatives designed to help avoid or minimize significant environmental impacts.

Southern California Association of Governments (SCAG) 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Final Program EIR, 2012 – The SCAG 2012-2035 RTP/SCS Final Program EIR analyzes the effects of implementation of SCAG's 2012-2035 RTP/SCS. The 2012-2035 RTP/SCS is a long-range regional transportation plan that provides a blueprint to help achieve a coordinated and balanced regional transportation system in the SCAG region. The SCAG region is comprised of six counties: Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The SCAG 2012-2035 RTP/SCS Final Program EIR serves as an informational document to inform decision makers and the public of the potential environmental consequences of approving the proposed RTP/SCS. The document includes responses to public comments on the 2012-2035 RTP/SCS Draft Program EIR, corrections and additions to the Draft Program EIR, and a Mitigation Monitoring Program which would be implemented to help avoid or minimize significant environmental impacts.

CHAPTER 2
Project Description

A. Introduction

The City of Rialto (City) is proposing the Pepper Avenue Specific Plan (Specific Plan or Project) to guide development of an approximate 101.7-acre site (Project Site) in the City south of State Route 210 (210 Freeway) along Pepper Avenue. The Project Site is mostly vacant with the exception of the recently constructed Pepper Avenue roadway extension, and the West Valley Water District (WVWD) Lord Ranch Facility (WVWD Facility), which includes production wells, a pump station, and a reservoir on approximately 13.7 acres. Proposed land uses include community commercial uses with up to approximately 462,000 square feet (SF) of retail shopping center and 125,000 SF of business park uses. In addition, a residential overlay would allow up to 275 multi-family dwelling units, which if developed, would replace 116,000 SF of retail shopping center, leaving a total of 346,000 SF of retail shopping center use.

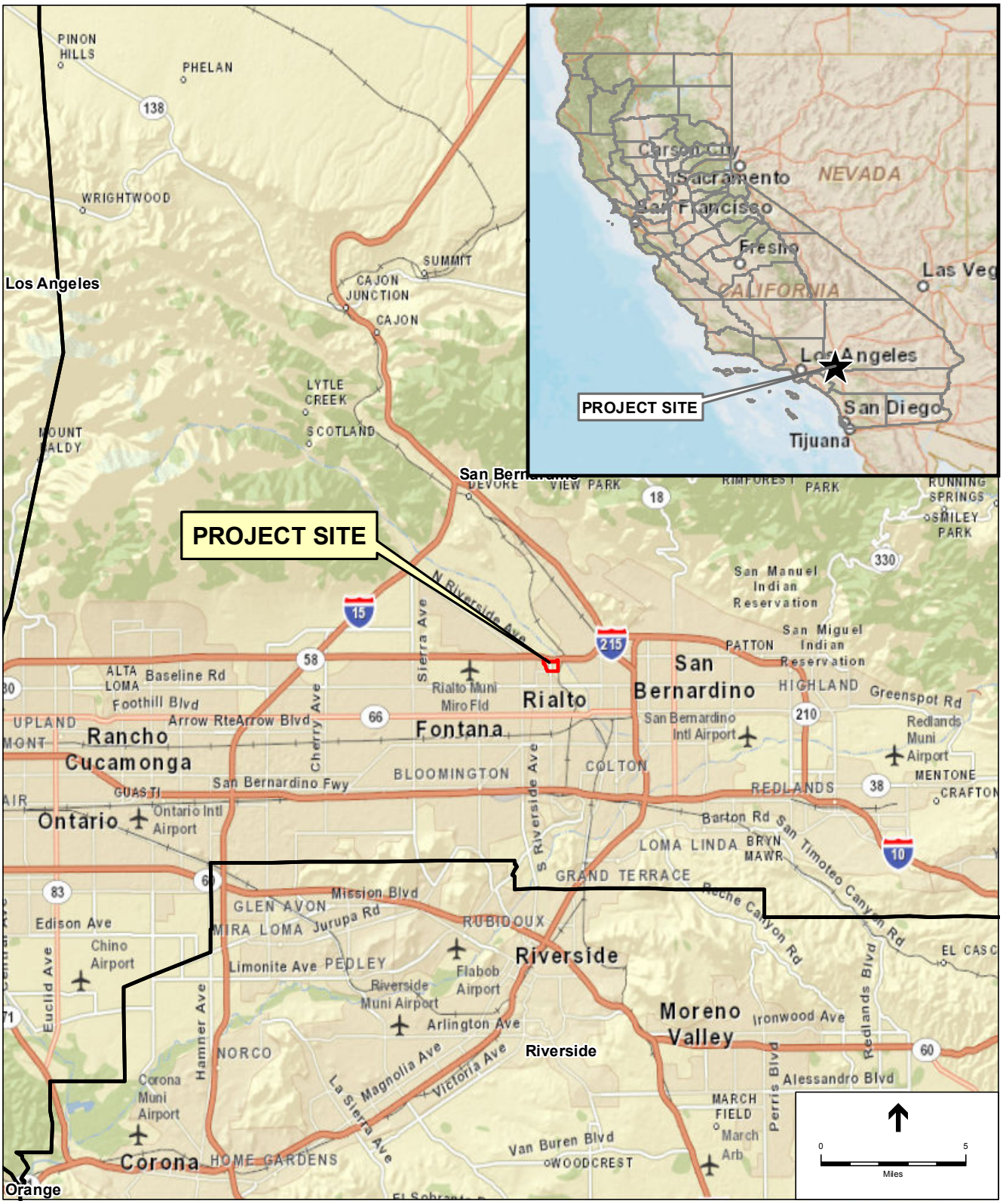
B. Project Location and Surrounding uses

The Pepper Avenue Specific Plan Project Site is located within the eastern portion of the City. Regionally, the City of Rialto is located in the southwestern portion of San Bernardino County in the largely developed San Bernardino Valley Region. Rialto is primarily surrounded by the developed cities of Fontana, Colton, and San Bernardino. Unincorporated portions of the counties of San Bernardino and Riverside also abut the City. The City of San Bernardino is immediately east of the Project Site. **Figure 2-1**, Regional Vicinity Map, shows the location of the Project Site from a regional perspective.

In the local Project vicinity, the irregular-shaped Project Site is generally located east of Eucalyptus Avenue, south of the 210 Freeway, west of Meridian Avenue and north of Walnut Avenue. Pepper Avenue bisects the east and west halves of the Project Site. Pepper Avenue was recently extended from Winchester Drive on the south, through the Project Site, connecting to Highland Avenue through an underpass just north of the 210 Freeway. **Figure 2-2**, *Local Vicinity Map*, shows the Project Site location within a local context.

Adjacent and surrounding land uses in the Project area are summarized as follows:

NORTH: CalTrans right-of-way/210 Freeway followed by vacant land and aggregate mining operations north of Highland Avenue. The 210 Freeway and Pepper Avenue Interchange Project is currently under construction and is anticipated to be completed in 2016 prior to opening of future development within the Project Site.



SOURCE: ESRI Street Map, 2009.

Pepper Avenue Specific Plan

Figure 2-1

Regional Vicinity Map

ESA PCR

SOURCE: Google Maps, 2015 (Aerial), KTGY, 2014.

Pepper Avenue Specific Plan

Figure 2-2

Local Vicinity Map

ESA PCR

EAST: Vacant land and the BNSF Railroad followed by the Lytle Creek Wash which trends in a southeast to southwest direction. The Lytle Creek – Island Levee System protects the Project Site and surrounding development from potential flooding associated with Lytle Creek. In addition, there is a semi-rural residence to the east of the Project Site just beyond the railroad line to the east of the on-site WVWD facility.

WEST: Single-family residential uses and Frisbie Park. The Park, in addition to children's play areas, includes six lighted baseball/softball fields.

SOUTH: An unnamed wash and vacant land followed by single-family residential uses.

C. Project Site Ownership and Existing General Plan/Zoning Designations

The Project Site is comprised of 12 parcels, ten of which are privately owned with two parcels in the southern portion of the Project Site owned by WVWD. The current zoning for the Project Site is Single-Family Residential (R-1A). The corresponding General Plan land use designation is Residential 6. The Residential 6 designation permits a density range of 2.1-6 du/acre consisting of detached units in suburban-style subdivisions, with one unit per lot.

D. Existing Site Conditions

The Project Site is mostly vacant, with the exception of the recently constructed Pepper Avenue roadway extension, which bisects the Project Site in a north-south direction, and a WVWD facility which includes three production wells, a pump station, and a reservoir (all to remain as part of the Project). Vacant portions of the Project Site are highly disturbed due to off-road vehicle (ORV) use, with some areas subject to unauthorized trash dumping. **Figure 2-3**, *Existing Site Photographs*, provides views of the existing conditions from various vantages throughout the Project Site. The locations of the photographs are illustrated in Figure 2-2.

Pepper Avenue, which the northerly portion is not constructed to its ultimate curb width, is designated as a Major Arterial, which the City General Plan indicates has "at least two lanes of travel in each direction, left turn lanes at intersections, and parking lanes." The northerly portion of Pepper Avenue will be completed in conjunction with the 210 Freeway/Pepper Avenue interchange construction. Landscaped sidewalks and streetlights are planned to be provided on both sides of Pepper Avenue (see Photograph 4 in Figure 2-3).

Both the east and west portions of the Project Site (divided by Pepper Avenue) generally have a consistent gradual downward slope of 1.25 - 2.5% from the northwest corner at 1,300 feet above mean sea level (amsl) to a low point at the southeast corner at 1,260 feet amsl. The existing drainage pattern is consistent with existing topography, which conveys storm flows southeasterly. The Project Site experiences offsite drainages which enter the Project Site at the northwest corner via 96- and 60-inch reinforced concrete pipes (RCP). This is the main source of storm run-on onto the Project Site. These flows generally traverse the Project's proposed open space areas (discussed below) to stormwater culverts beneath Pepper Avenue (also discussed below).

PHOTOGRAPH 1. Southeasterly view from NW corner of site near intersection at Easton Street and Eucalyptus Avenue (Frisbie Park).

PHOTOGRAPH 2. Southwesterly view from NE corner of site along SR-210.

PHOTOGRAPH 3. Northeasterly view from SW corner of site at terminus of E. Walnut Avenue.

PHOTOGRAPH 4. Northerly view from southern project boundary along Pepper Avenue.

SOURCE: ESA PCR, 2015

Pepper Avenue Specific Plan

Figure 2-3

Existing Site Photographs

ESA PCR

The 96-inch RCP consists of drainage from areas north of the 210 Freeway, including developed residential areas east of Cactus Avenue. The 60-inch RCP conveys drainage from the 210 Freeway.

The Pepper Avenue roadway extension was constructed atop an earthen embankment with four, 10-foot by 10-foot reinforced concrete block culverts constructed beneath the roadway to convey drainage across the Project Site in a northwest to southeast direction. These culverts were designed to provide adequate width and height for migration of wildlife through the Pepper Avenue watershed and for maintenance by the City, in addition to accommodating seasonal stream flows within the tributary and maintaining existing hydrological conditions. Beyond Pepper Avenue, flows trend in an easterly direction within an unnamed wash and feed Lytle Creek. Current Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) indicates the Project Site falls within a Zone X. FEMA defines a Zone X as, "the areas between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood."[1]

Nonnative grasslands (see Photograph 2 in Figure 2-3), which in some areas support a sparse population of elderberry shrubs, cover the central portion of the Project Site; relatively undisturbed mature and intermediate Riversidean alluvial fan sage scrub (RAFSS) habitat dominates the western portion of the Project Site (see Photographs 1 and 3 in Figure 2-3) and a small are of southern willow scrub (SWS) habitat is located near the WVWD pumping facility in the southern portion of the Project Site. Based on a preliminary jurisdictional assessment conducted by PCR, the Project Site supports at least two jurisdictional drainage features which are subject to regulation by the United States Army Corps of Engineers (USACE) and the Santa Ana Regional Water Quality Control Board (RWQCB) as "waters of the U.S.," and by the California Department of Fish and Wildlife (CDFW) as jurisdictional streambed.

The entire Project Site is located within a State of California designated Alquist-Priolo Earthquake Fault Zone for the San Jacinto fault. The Alquist-Priolo Special Studies Zone (Earthquake Fault Zone) Map of the San Bernardino North Quadrangle indicates that a trace of the San Jacinto fault passes through the southwest corner of the Project Site and a concealed (postulated) trace of the San Jacinto fault passes through the center of the Project Site. Also, the Exhibit 4.6-2, Geologic Hazards Map, in the City's 2010 General Plan Draft EIR shows the San Jacinto fault passing through the southwest corner of the Project Site.

E. Project Objectives

The Pepper Avenue Specific Plan is designed to implement a series of objectives to ensure that the Project results in a high-quality development that meets realistic and achievable objectives. These objectives, which are identified below, have been refined throughout the planning and design process for Pepper Avenue:

1. Provide an eastern gateway to the City of Rialto that offers new and exciting retail opportunities and promotes the identity of the North End (Pepper Avenue) neighborhood.

[1] Section IX, Hydrology and Water Quality, in Attachment B of the Initial Study (see Appendix A of this EIR), provides a detailed discussion of the Project Site's drainage and flood-related characteristics.

2. Provide freeway-oriented commercial opportunities to serve regional needs and stimulate job and revenue growth in the City.
3. Address the City of Rialto's current and projected housing needs by allowing a portion of the Project to be developed with multi-family residences.
4. Incorporate "Green" and sustainable practices, as practicable, in developing buildings and infrastructure.
5. Undertake development of the Project Site in a manner that is economically feasible and balanced to address both the property owners' and the City's economic concerns.
6. Revitalize the underutilized Project Site through the implementation of a predominantly retail development that will service the surrounding existing residential communities.
7. Encourage pedestrian and bicycle connectivity.
8. Locate and integrate the design of native habitat open space areas into the community by providing a potential pedestrian bridge inclusive of interpretive signage, which connects the development area with the adjacent Frisbie Park.
9. Maximize the use of native plant materials/species in the Project landscaping, especially in areas located in proximity to preserved native habitat.

F. Description of the Proposed Project

The Pepper Avenue Specific Plan comprises six chapters including Chapter 1, Introduction; Chapter 2, Planning Context; Chapter 3, Plan Elements; Chapter 4, Design Guidelines; Chapter 5, Development Standards, and Chapter 6, Implementation. Appendix A of the Specific Plan evaluates the consistency of the Specific Plan with the goals and policies of the General Plan, as required under by Section 65454 of the California Government Code. Appendix B of the Specific Plan includes a development tracking table. Chapter 1, Introduction, of the Specific Plan describes the purposes and components of the Specific Plan, the authority and format of the Specific Plan, Project setting, and Project objectives.

Chapter 2, Planning Context, describes the relationship of the Specific Plan to the City of Rialto General Plan and Zoning Code. The chapter describes existing environmental conditions and surrounding land uses. Chapter 3, Plan Elements, discusses the various plan elements for the Specific Plan including the Land Use Plan, Open Space and Conservation Plan, Circulation Plan, Infrastructure and Public Services Plan, and Grading Plan. Chapter 4, Design Guidelines, contains the site planning, architectural, and landscaping design guidelines for the Specific Plan. The purpose of these guidelines is to ensure that the Project would develop as a quality retail center with consistent design elements. The Specific Plan makes a distinction between the design guideline requirements of the public and private realms. The public realm includes streets, sidewalks, parkways, medians and City-owned open space. The private realm includes privately owned land and developed portions of the Project, which are all non-dedicated portions of planning areas. Design guidelines for the public realm, which have a high level of exposure, impose greater regulation and specificity to ensure a high quality and attractive outcome. Design guidelines for the private realm are intended to provide developers, architects, planners, landscape architects and engineers the ability to implement their creative expertise while still maintaining conformity with the public realm and the aesthetic vision of the overall Specific Plan.

This flexibility will also allow designers to address current trends as well as future market demands with the greatest degree of specificity, which will ensure that the Project not only utilizes attractive design, but also economically viable.

Chapter 5, Development Standards, establishes the permitted uses and physical development standards for development in the Specific Plan Project Site. Standards in the Specific Plan supersede those of the Rialto Municipal Code, unless otherwise stated. Definitions are the same as described in Chapter 18.08 of the Municipal Code, except as otherwise defined. Land use designations include community commercial, open space, public facility, residential overlay and community commercial overlay.

Chapter 6, Implementation, describes the administration of the Specific Plan in accordance with State regulations and other administrative provisions related to interpretation, severability, determination of compliance, and implementation of development applications. Chapter 6 also describes phasing, infrastructure financing, developer funding, impact fees and exactions, assessment districts and other issues related to financing, development transfers, required compliance and modifications.

Project Components

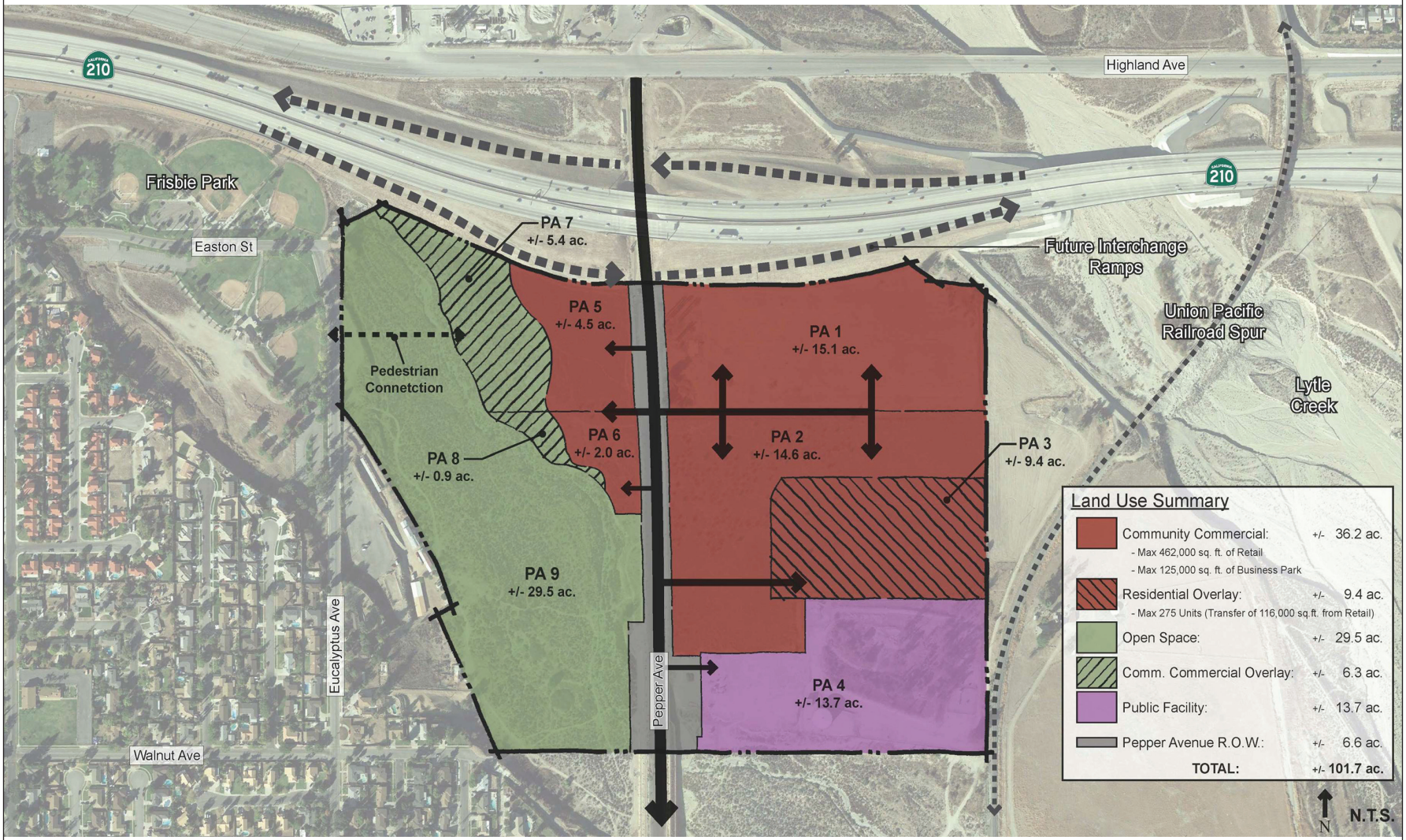
The following describes the components of the proposed Specific Plan, including land uses, open space, infrastructure, and circulation elements that would provide for the orderly development of the Project Site. The Specific Plan includes community commercial, open space, public facility, and potential residential uses.

Land Use Plan & Summary

Figure 2-4, Land Use Plan, illustrates the overall land use plan for the Project Site with a summary of those uses provided below. The Project Site would be comprised of nine Planning Areas. **Table 2-1**, Planning Area Land Use Summary, provides the total acres and amount for each of the proposed land use by Planning Area, including total potential dwelling units. **Table 2-2**, Development Scenarios Summary, describes the two maximum development scenarios that could occur in association with the proposed commercial and residential overlay areas.

Community Commercial Land Uses

The Community Commercial land use designation provides for a variety of commercial and retail uses, as well as business park development consisting of a mix of office, research and development, light industrial and other complementary uses. Community commercial uses are proposed by the Project due to its physical and visual accessibility from the 210 Freeway and the proposed interchange.



SOURCE: KTGY Architecture+Planning, July 2015

Pepper Avenue Specific Plan

Figure 2-4

Land Use Plan

ESA PCR

TABLE 2-1
PLANNING AREA LAND USE SUMMARY

Planning Area	Acres	Land Use	Development Potential
PA 1	15.1	Community Commercial	95,000 sf Business Park Uses
			108,650 sf Retail Uses
PA 2	14.6	Community Commercial	30,000 sf Business Park
			127,000 sf Retail Uses
PA 3	9.4	Community Commercial with Residential Overlay	116,000 sf Retail Uses*
PA 4	13.7	Public Facility	West Valley Water District Facilities
PA 5	4.5	Community Commercial	41,000 sf Retail Uses
PA 6	2.0	Community Commercial	8,400 sf Retail Uses
PA 7	5.4	Open Space with Community Commercial Overlay	52,700 sf Retail Uses
PA 8	0.9	Open Space with Community Commercial Overlay	8,250 sf Retail Uses
PA 9	29.5	Open Space	Natural Open Space
Pepper Avenue Right-of-Way (ROW)	6.6	Right-of-Way	Right-of-Way
Totals:	**101.7**		**462,000 Total Retail Uses**
			125,000 Total Business Park Uses[a]

[a] As part of the multi-family overlay zone, up to 275 multi-family dwelling units may be permitted with a corresponding reduction of up to 106,000 square feet of retail uses, as described in Section 5.4.2, Residential Overlay Development Equivalency.

SOURCE: City of Rialto, Pepper Avenue Specific Plan, Table 3.1, 2016.

TABLE 2-2
DEVELOPMENT SCENARIOS SUMMARY

Land use	Maximum Development Potential
Scenario 1	
Retail	462,000 SF
Business Park	125,000 SF
Scenario 2	
Residential	275 Units
Retail	346,000 SF
Business Park	125,000 SF

SOURCE: ESA PCR, 2015.

The Community Commercial land use designation is applied to PAs 1, 2, 3, 5 and 6, which encompass approximately 45.6 acres of land in the northern portion of the Project Site adjacent to the 210 Freeway. The maximum buildout within these planning areas, assuming no utilization of the Multi-Family Overlay zone (discussed below), would be 462,000 square feet of retail uses and

125,000 square feet of business park uses (Scenario 1). In Scenario 2, retail square footage could be exchanged for multi-family residential units, up to a total of 275 multi-family dwelling units with a corresponding decrease of up to 116,000 square feet of retail uses. Retail uses include, but are not limited to, grocery stores, retail stores, restaurants and the like. Business park uses include, but are not limited to, general offices, medical offices, research and development, light industrial and the like. These uses would be within buildings up to a maximum of four stories.

As detailed in Section 4.1, Aesthetics, a "main street" aesthetic component would be fostered in parts of the Community Commercial planning areas with the creation of a central retail axis. This axis would be accessed off of Pepper Avenue and act as the Town Center portion of the Project; it would be visually anchored at the end of the main street, opposite the entrance off Pepper Avenue by a design feature that could take shape as a plaza, unique building, fountain, or object of similar visual interest.

Community Commercial Overlay

The Community Commercial Overlay is intended to increase the viability of commercial development within PAs 5 and 6 by potentially allowing commercial uses on the adjacent PAs 7 and 8. In this development scenario, an additional 6.3 areas of Community Commercial uses would be developable, allowing the possibility of larger retail tenants. Should PAs 7 and 8 ultimately be preserved as open space or not developed, the development allotted for these PAs may be transferred to another PA. Open space, retail, and business park uses are permitted in PAs 7 and 8.

Multi-Family Residential Overlay

The Multi-Family Residential Overlay is intended to provide flexibility to better address future market conditions and housing needs of the City of Rialto. Multi-family units, at a maximum density of 30 dwelling units per acre, may be developed within PA 3 up to a maximum of 275 units. These units would be permitted with a corresponding reduction up to 116,000 square feet of retail uses (see Scenario 2).

Multi-Family Residential Overlay Development Equivalency

Multi-family units may be developed in PA 3 at a rate of 421.81 retail square feet per dwelling unit, at the discretion of the future developer. This exchange operates on a sliding scale, and may be used to exchange up to 116,000 square feet of community commercial uses for up to 275 multi-family units in total. For example, should a future application include a proposal for 100 multi-family dwelling units, the allowed 116,000 square feet of retail development for PA 3 shall be reduced by 42,181 square feet (421.81 multiplied by 100), resulting in the potential remaining development of 73,819 retail square feet on PA 3.

Open Space

Currently, no parks are proposed within the Specific Plan area. However, the Specific Plan is proposing that at a minimum, PA 9 (29.5 acres) remain as open space. PA 9 consists for the most part of RAFSS habitat and jurisdictional drainage features located on/near its eastern boundary.

If PA 7 and PA 8 (Community Commercial Overlay area = 6.3 acres) do not get improved with community commercial uses, they would remain as open space. Thus, the total open space could increase to 35.8 acres under this scenario. Similar to PA 9, PAs 7 and 8 consist for the most part of RAFSS habitat, with jurisdictional drainage features just beyond their western boundaries. Uses allowed within both community commercial and open space zones would be allowed in the Community Commercial Overlay.

Pedestrian Bridge and Welcoming Plaza

As shown in Figure 2-4, the Specific Plan is also contemplating to provide a grade, separated pedestrian bridge connection between its developed areas and Frisbee Park to the west. The bridge would span over the RAFSS habitat in PA 9 and could be as short as approximately 300 feet long if PA 7 gets developed or upwards of 700 feet long if PA 7 does not get developed. Under either scenario, the bridge would be 10-feet wide and for pedestrian use only. The bridge would also be designed to allow for the movement of wildlife through the RAFSS habitat. As mentioned above, the drainage culverts beneath Pepper Avenue were designed to provide adequate width and height for migration of wildlife through the Pepper Avenue watershed. Thus, with the proposed bridge and existing culverts, wildlife in the open space area (RAFSS habitat) on the west side of the Pepper Avenue would have a corridor to move through the Project Site from the opens space area to Lytle Creek Wash located on the east of the Project Site. The bridge would also include interpretive signage, which would allow visitors to view and learn about the habitat that they are crossing.

Once entering into the Project Site from Frisbie Park, visitors would enter into a welcoming plaza, announcing their arrival into the City's northeastern gateway. The welcoming plaza is envisioned to be a pedestrian-friendly area with a focal element and seating. Additional details of the pedestrian bridge and the welcoming plaza are included in Section 4.1, Aesthetics.

It should be noted that there are a number of variables that need to be determined for the pedestrian bridge, including but not limited to, obtaining permitting agency approvals (i.e. Army Corps of Engineers). Although it is anticipated that the pedestrian bridge would not disrupt a significant portion of the RAFSS, timing and securing funding for the bridge may be difficult to coordinate. As such, the pedestrian bridge is an encouraged element of the Project. Should the pedestrian bridge not occur, the welcoming plaza in PA 5/7 would not be required.

Public Facility

The area designated for Public Facility uses is currently developed with the WVWD Facility. The facility consists of a combination of pump stations, water supply wells, and an aeration reservoir that serves WVWD's Zone 4. No future development is proposed on this portion of the Project Site as part of the Project. However, WVWD is currently considering improvements to the facility that would include the construction and operation of a 1-million-gallon steel-welded reservoir, which measures 80 feet in diameter and 32 feet in height, and a 3,500 square-foot pump station within a concrete masonry building. The improvements would also include the construction of an asphalt driveway, paved areas around the pump station and reservoir, and a concrete block masonry retaining wall. A retaining wall would extend along the western property

line and a portion of the southerly property line to allow the ground surface around Well No. 36 to be raised about 8 feet. These improvements, if implemented, are expected to be constructed in 2016-17, with operation occurring in late 2017.

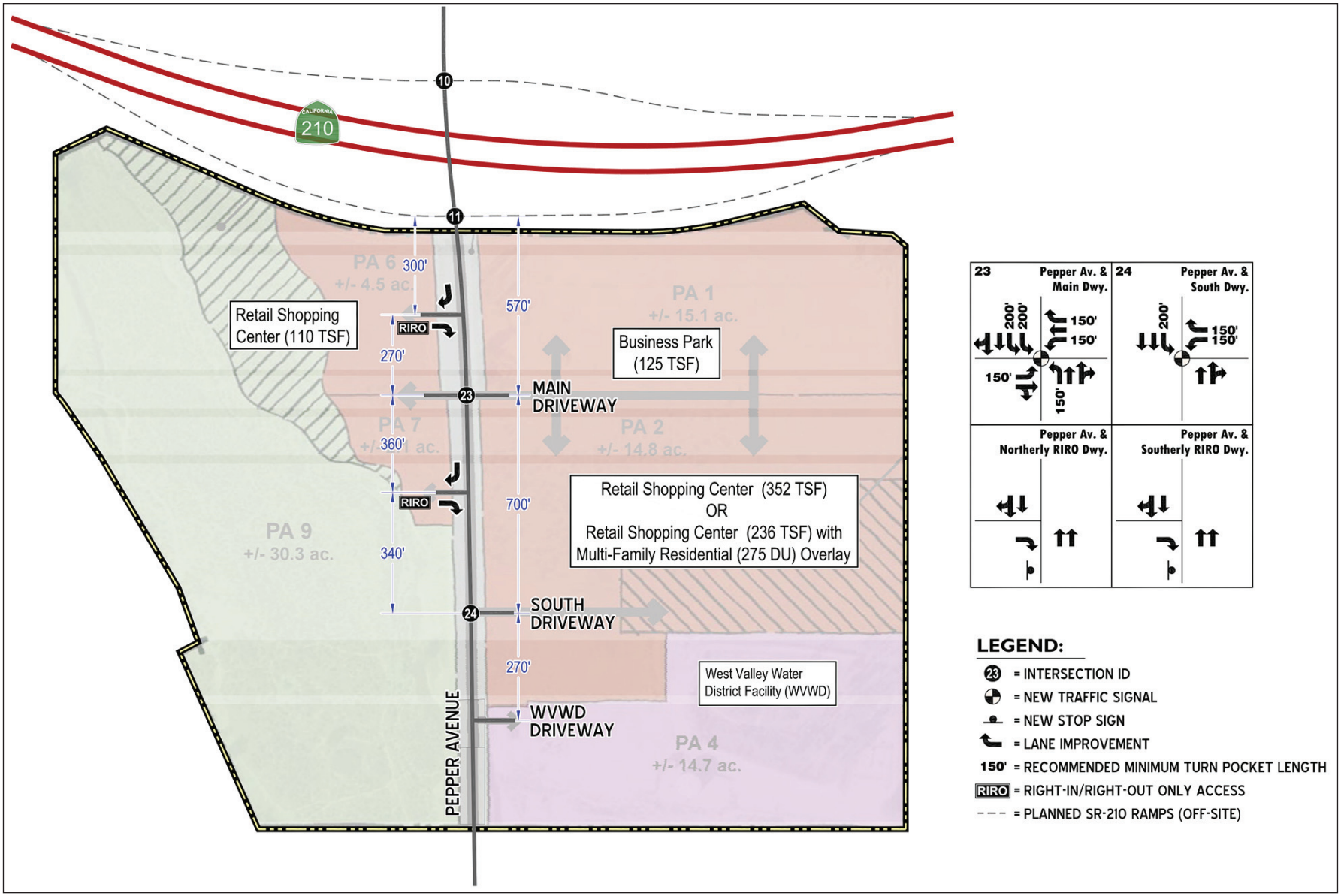
Site Access and Circulation

The Project Site would be locally accessed via Pepper Avenue from the north and south. The Pepper Avenue interchange with the 210 Freeway would provide regional access to the Project Site. Pepper Avenue is designated as a Major Arterial in the City of Rialto General Plan. The Project includes improvements to Pepper Avenue by including four lanes of travel and a Class II bike lane in both directions. Pepper Avenue also includes a raised median at some locations, inclusive of turn pockets, as depicted in **Figure 2-5**, Circulation Plan. On-street parking would be prohibited along Pepper Avenue within the Specific Plan Project Site.

Also, the Project would accommodate the construction of four new signalized and non-signalized intersections that would provide access to the Project Site. Two driveways would be signalized and two others will only allow for right-in, right-out traffic to ensure safe, orderly and predictable vehicular travel. The four new driveways include:

- Driveway 1 - Northerly Right-In/Right-Out (RIRO) Driveway: The Driveway 1 intersection is the northernmost driveway, and is a right-in, right-out non-signalized configuration that provides direct access into PA 5. A stop sign would control traffic flow from PA 5 onto Pepper Avenue;
- Main Driveway (#23) - The Main Driveway intersection is a four-way signalized intersection that provides direct access into PAs 1, 2, 5, and 6. All turning movements would be conducted via a turn lane, with the exception of the southbound Pepper Avenue traffic into PAs 1 and 2, which would feature a dual turn lane. This intersection would also be the entry for the Town Center portion of the Project. The Main Driveway intersection would have pedestrian crossings in all directions;
- Driveway 2 - Southerly RIRO Driveway: The Driveway 2 intersection is a right-in, right-out non-signalized configuration that provides direct access into PA 8. A stop sign would control traffic flow from PA 8 onto Pepper Avenue; and
- South Driveway (#24) - The South Driveway intersection is a three-way signalized intersection that provides direct access to PA 2 and access to PA 3 through PA 2. The South Driveway Intersection would have pedestrian crossings in all directions.

The improvements to the driveway locations are included as project design features (PDFs) PDF TRAF-1 to -4, respectively, which are listed below. These improvements are also illustrated in Figure 2-5. Construction of any traffic improvements would occur in conjunction with adjacent development activity or as needed for Project access purposes.



SOURCE: Urban Crossroads, 2015

Pepper Avenue Specific Plan

Figure 2-5
Circulation Plan

ESA PCR

In addition, the City of Rialto is served by OmniTrans, the transit service for San Bernardino County. The Project Site is not currently served by OmniTrans service. Transit service is reviewed and updated by OmniTrans periodically to address ridership, budget and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate. However, it is anticipated that OmniTrans would provide bus service to the Project Site, when Project operations commence.

In addition to the potential pedestrian bridge described above, wide, enhanced sidewalks would be provided along both sides of the "main street" of the retail center in PAs 1 and 2, which terminates in a plaza space that could be used for relaxation, dining, passive recreation, or a visual terminus, such as a building. This pedestrian circulation concept for the main retail axis is designed to bolster retail activity along the "main street" and plaza, while providing a pleasant and walkable shopping experience for users of the Project Site.

Infrastructure

As described above, the recent Pepper Avenue roadway extension bisects the east and west half of the Project Site from Winchester Drive to the 210 Freeway. The roadway improvements also included the addition of sewer, water, and storm drain infrastructure that parallel the roadway. Due to this newly constructed infrastructure, the surrounding area has become far more conducive for development. The Project's proposed infrastructure improvements are described below.

Drainage and Water Quality

The Specific Plan Project Site consists of existing storm drainage infrastructure within the Pepper Avenue-right-of-way. This infrastructure accommodates the run-off within the Pepper Avenue right-of-way and the existing flows into the right-of-way.

Proposed storm water drainage facilities and flows for private properties within the Project Site would be consistent with State and City requirements for storm water conveyance. Future development(s) within the Specific Plan area would require onsite storm drain facilities to convey storm flows, detain/retain peak storm events, and maintain water quality.

One option to meet state and local requirements is included in the Initial Study/Notice of Preparation for the Pepper Avenue Specific Plan. This conceptual-level system included two (2) common storm drainage and water quality systems, one on the west side of Pepper Avenue and one on the east side. This scenario is described below.

The final storm water design may differ from this design, as this Specific Plan does not mandate specific building locations. Additionally, the final design could include green roofs, bioswales, etc. that would alter the minimum required size of the underground basin, or even eliminate the need for an underground basin. Other designs such as at-grade basins, or storm water designs that only treat individual developments could also be implemented. Regardless, the precise design would be analyzed as part of the Water Quality Management Plan for each future, precise development.

West and East Systems Drainage Scenario

Under this scenario, generally, the drainage system would mimic the drainage patterns of the existing condition. The Project Site would be designed to convey flows southerly on each side of Pepper Avenue, which would then flow easterly towards the Union Pacific Railroad Bridge and join Lytle Creek as it currently does in the existing condition. Section IX, Hydrology and Water Quality, in Attachment B of the Initial Study, provides a detailed discussion of the proposed hydrological conditions under this scenario.

The West and East systems both include multiple parcels with two different property owners within each system, with the land use plan splitting each system into a northerly site. In the West system, the northerly site encompasses Planning Areas 5 and 7 and the southerly site encompasses Planning Areas 6 and 8. In the East System, the northerly site encompasses Planning Area 1 and the southerly site encompasses Planning Areas 2 and 3.

Regardless of development phasing, drainage and water quality improvements would be designed conceptually to function over the entirety of the Project Site, with both systems functioning independently of the other system. Conceptually, the drainage facilities could be designed as follows.

The West and East system would convey storm flows to the southeastern and southern portion of the Project Site, respectively, towards a proposed detention/retention system within each system. The detention/retention facilities could serve as a dual function basin, providing mitigation for both the capital storm events and water quality compliance. The proposed retention/detention system would be designed to mitigate storm flows to pre-development conditions prior to discharging from the Project Site, towards the Pepper Avenue Watercourse.

If the Project Site west or east of Pepper Avenue is developed concurrently, the respective drainage and water quality system(s) could be constructed to the final design as mentioned above. The developers within either system would enter into a development agreement to delineate their fair share cost of design and construction of the facilities, as applicable. If the northerly portion within either system is developed prior to the southerly portion, the owner would be responsible to do one of the following;

1. Install the proposed retention/detention system within the southerly portion of the Project Site (within their respective system) as well as any drainage conveyances to and from the basin system, sized to accommodate the south site as well. This could require a development agreement for reimbursement of the fair share of costs and shared land use between both owners; or

10. Install drainage and water quality facilities to accommodate only the north portion of their respective system. This would most likely require the design and implementation of an interim Grading and Drainage Plan to mitigate any impacts to the southerly owner.

If the southerly portion of either system is developed prior to the northerly portion, the southern property owner would be responsible to install a drainage and water quality system within the southerly portion of the Project Site to include the anticipated demand and capacity contributed from the northerly site (within their respective system). Specifically, the proposed stormwater

conveyances and retention/detention basin within each system would be sized per stormwater and water quality demand for the either the entire West system (Planning Areas 5, 6, 7 and 8) or entire East system (Planning Areas 1, 2 and 3). As such, a development agreement between owners within each system would be implemented for the reimbursement of the fair share of costs.

Water Supply

Potable water service to the Project Site is provided and maintained by WVWD. The Project's water service is within the WVWD Zone 4 service area which is generally bounded by Baseline Road on the south, Highland Avenue on the north, Arrowhead Avenue to the west, and the Lytle Creek Wash to the east.

With the recent Pepper Avenue roadway improvements, two water lines were constructed within Pepper Avenue. Three water lines within Pepper Avenue serve the WVWD Facility located on the east side of Pepper Avenue in the southern portion of the Project Site. Based on the West Valley Water District Water Master Plan (2012) (2012 Master Plan), the WVWD Facility consists of a combination of pump stations, water supply wells, and an aeration reservoir that serves the WVWD's Zone 4. A 12-inch line runs south of the WVWD Facility along Pepper Avenue extending to an existing water main in Winchester Drive. A 30-inch line runs north of the WVWD Facility along Pepper Avenue extending and joining to an existing 16-inch water main just south of the 210 Freeway. This 30-inch line conveys water to upper pressure zones located north of the Project Site. A second 30-inch line runs from the WVWD Facility south along Pepper Avenue toward Winchester Drive.

As Pepper Avenue bisects the east and west portions of the Project Site, a connection to the servicing line would be required from both sides of Pepper Avenue. These future connections would lie north of the WVWD Facility and would require either a direct connection to the existing 30-inch transmission line in Pepper Avenue or extending the 12-inch line to the connection points. According to the City of Rialto, Pepper Avenue Specific Plan Water System Analysis (herein referred to as the Water System Analysis) and included in Appendix C of this Initial Study), prepared by Fuscoe Engineering, dated April 2015, currently, there is adequate capacity in both the 30-inch and 12-inch transmission lines to support the future development within the Specific Plan area. The Project's water system requirements have been included in the list of project design features below.

Sewer

With the recent Pepper Avenue roadway improvements, two sewer lines were constructed within Pepper Avenue. The two lines consist of a 12-inch vitrified clay pipe (VCP) and a 6-inch VCP force main. Per the City's Sewer Master Plan (April 2013), the 12-inch line gravity flows south in Pepper Avenue from the 210 Freeway to a low point in Pepper Avenue and is capped for future connection to a future sewer lift station (described below). The 6-inch VCP force main would convey flows from the future lift station southerly to a drop manhole within Pepper Avenue, which would then gravity flow southerly and join the nearest existing manhole (MH No. 204-24) at the intersection of Winchester Drive and Pepper Avenue. The future sewer system for the Project would consist of two systems, the East and West systems. The East system, which would

serve development east of Pepper Avenue, would gravity flow southerly within the future commercial development area and then westerly to a proposed lift station on the east side of Pepper Avenue. The East system would consist of 8-inch and 6-inch laterals. Based upon a schematic grading design, portions of this system would "buck" grade as the system gravity flows westerly reaching depths of 20 to 25 feet where it would join a future lift station. This future lift station would convey flows southerly in Pepper Avenue via an existing 6-inch force main, which is currently inactive and awaiting future development.

The West system would gravity flow easterly towards Pepper Avenue and join an existing 12-inch VCP sewer line in Pepper Avenue. This sewer line is currently inactive and awaiting future development and a future lift station as previously stated.

A sewer lift station would be constructed to pump sewage flows southerly towards Winchester Drive. The approved sewer plans for the Pepper Avenue Extension Project identify a lift station location on the east side of Pepper Avenue. This future lift station would need to convey sewage flows southerly in Pepper Avenue via a force main into the gravity sewer system in Winchester Drive. The future lift station would need to be sized to accommodate the peak sewer flows from the Project as well as any potential offsite future developments that may be tributary to the lift station.

The service area for the future lift station would include the Project Site as well as the Caltrans-maintained area north of the 210 Freeway and south of Highland Area (which consists of 7.4 acres). Per the City of Rialto, future development of this 7.4-acre area would likely add additional sewer flows of approximately 9 percent of the above peak flow to the lift station. Therefore, the proposed lift station would be designed to accommodate the calculated peak flow plus 9 percent.

The onsite sewer system for the Specific Plan area may reach depths of 20-25 feet, therefore the future lift station must be designed to have sufficient power to siphon sewer flows from these depths. Furthermore, there would be approximately 35-40 feet of vertical change and approximately 1,100 feet of horizontal length between the lift station and the point of connection into the existing sewer system in Winchester Drive.

Final engineering and design specifications for the lift station would consider the above mentioned site constraints in order to adequately service the Project. These system requirements have been included in the list of project design features below.

Landscaping

Extensive landscaping would be provided throughout the Project Site. Additionally, development of the various proposed land uses within the Project Site would be subject to the landscaping guidelines proposed in the Specific Plan.

The purpose of the landscape guidelines is to provide a cohesive landscape design theme. The landscape will consist of an effective combination of street trees, trees, shrubs, vines and ground covers, and will be high-quality, low maintenance and water efficient. The existing and future

landscape within the Pepper Avenue right-of-way will be similarly landscaped to clearly identify the Project. The following guidelines will be incorporated to achieve the intended design:

1. The Pepper Avenue streetscape shall be simple, strong and cohesive throughout. It shall extend the existing Pepper Avenue landscape design elements.

11. The landscape elements will focus on providing high visual interest at critical entry points.

12. Landscape elements shall enhance and compliment the architectural design and overall character of the Project.

Design Features

The below listed design features (DFs) are design elements that are incorporated into the Specific Plan and would be implemented by future development(s) within the Project Site that would prevent the occurrence of or minimize the significance of potential environmental effects. Because DFs are part of the Specific Plan and would be implemented by future development(s) on the Project Site, they do not constitute mitigation measures, as defined by Section 15126.4 of the State CEQA Guidelines (Title 14 of the California Code of Regulations). However, the DFs would be included in the Mitigation Monitoring and Reporting Program (MMRP) to ensure their implementation as a part of the Project. The Project would include the following DFs:

Traffic

DF TRAF-1: Pepper Avenue / Northerly Right-In/Right-Out (RIRO) Driveway – Install stop sign control on the EB approach, design the intersection to restrict left-in access to the Project driveway and left-out access from the Project driveway, and construct the intersection with the following geometrics:

- NB Approach: Provide two through lanes.
- SB Approach: Provide one through lane and one shared through-right turn lane.
- EB Approach: Provide a right turn lane.

DF TRAF-2: Pepper Avenue / Main Driveway (#23) – Install traffic signal control and construct the intersection with the following geometrics:

- NB Approach: Provide one left turn lane, one through lane, and one shared through right lane.
- SB Approach: Provide two left turn lanes, one through lane, and one shared through right lane.
- EB Approach: Provide one left turn lane and one shared through-right lane.
- WB Approach: Provide one left turn lane, one through lane, and one right turn lane.

DF TRAF-3: Pepper Avenue / Southerly RIRO Driveway – Install stop sign control on the EB approach, design the intersection to restrict left-in access to the Project driveway and left-out access from the Project driveway, and construct the intersection with the following geometrics:

- NB Approach: Provide two through lanes.

- SB Approach: Provide one through lane and one shared through-right turn lane.
- EB Approach: Provide a right turn lane.

DF TRAF-4: Pepper Avenue / South Driveway (#24) – At complete build-out, or as otherwise determined by traffic needs, install traffic signal control and construct the intersection with the following geometrics:

- NB Approach: Provide one through lane and one shared through-right lane.
- SB Approach: Provide one left turn lane and two through lanes.
- WB Approach: Provide one left turn lane, and one right turn lane

Water Infrastructure

DF WATER-1: Water Infrastructure – Future development within the Project Site shall provide connections to the water servicing line from both sides of Pepper Avenue. These future connections shall lie north of the WVWD Lord Ranch Facility and require either a direct connection to the existing 30-inch transmission line in Pepper Avenue or extending the 12-inch line to the connection points. The water system shall be designed to deliver the peak hour domestic demand to each service point with a residual pressure of 40 pounds per square inch (psi) and to deliver specified fire flow plus the peak day domestic demand with a minimum residual pressure of 20 psi. The fire flow requirement for the Project Site is 3,000 gallons per minute (gpm) for three hours (for commercial/office/high density residential areas). The maximum operating pressure in mains shall not exceed 130 psi with pressure reducers required on service connections having pressure greater than 80 psi. All water lines shall be looped where possible. All dead end lines shall not exceed 660 feet in length or the current design requirements at the time of design.

DF WATER-2:Water Fees - The applicant of each applicable future development proposed within the Project Site shall be responsible for paying development impacts fees per Title 3 – Revenue and Finance, Chapter 3.33 – Development Impact Fees, Section 3.33.260 – Domestic and Recycled Water Facilities Development Impact Fee of the Municipal Code.

Sewer Infrastructure

DF SEWER-1: Sewer Infrastructure – The sewer system for the Project shall consist of two systems, the East and West systems. The East system shall gravity flow southerly within the future commercial development area (east of pepper Avenue) and then westerly to a proposed lift station on the east side of Pepper Avenue. The East system shall consist of 8-inch and 6-inch laterals. The West system (west of Pepper Avenue) shall gravity flow easterly towards Pepper Avenue and join an existing 12-inch VCP sewer line in Pepper Avenue.

An on-site sewer lift station on the east side of Pepper Avenue shall be required to pump sewage flows southerly via a force main into the gravity sewer system in Winchester Drive. The future lift station shall be sized to accommodate the peak sewer flows from the Project as well as any potential offsite future developments that may be tributary to the lift station, including the Caltrans-maintained area north of the 210 Freeway and south of Highland Area (which consists of 7.4 acres). Future development of this 7.4-acre

area would likely add additional sewer flows of approximately 9 percent of the above peak flow to the lift station. Therefore, the proposed lift station shall be designed to accommodate the calculated peak flow plus 9 percent.

The on-site sewer system for the Specific Plan area may reach depths of 20-25 feet, therefore the future lift station shall be designed to have sufficient power to siphon sewer flows from these depths. Furthermore, there would be approximately 35-40 feet of vertical change and approximately 1,100 feet of horizontal length between the lift station and the point of connection into the existing sewer system in Winchester Drive. The final engineering and design specifications shall ensure the lift station can accommodate these constraints.

DF SEWER-2: Sewer Fees - The applicant of each applicable future development proposed within the Project Site shall be responsible for paying development impacts fees per Title 3 – Revenue and Finance, Chapter 3.33 – Development Impact Fees, Section 3.33.240 – Sewage Collection Facilities Development Impact Fee and Section 3.33.250 – Sewage Treatment Facilities Development Impact Fee of the Municipal Code.

Stormwater Infrastructure

DF HYDRO-1:SWPPP - A Storm Water Pollution Prevention Plan (SWPPP) shall be developed by the applicant of each future development proposed within the Specific Plan that disturbs 1 or more acre. The SWPPP shall comply current Construction General Permit (CGP) and associated local National Pollutant Discharge Elimination System (NPDES) regulations at the time of development to ensure that the potential for soil erosion and short-term water quality impacts is minimized on a project-by-project basis.

DF HYDRO-2:WQMP - A Water Quality Management Plan (WQMP) shall be developed by the applicant of each future development proposed within the Specific Plan. The WQMP shall comply with all applicable provisions of the San Bernardino County Technical Guidance Document for Water Quality Management Plan (TGD-WQMP), WQMP Template (Template), and Transportation Project BMP Guidance, as required under Section XI.D.2 of Order No. R8-2010-0036. The WQMP shall include, but not be limited to, the following:

- Incorporation of site design/Low Impact Development (LID) strategies and source control measures in a systematic manner that maximize the use of LID features to provide treatment of stormwater and reduce runoff. For those areas of the Project Site where LID features are not feasible or do not meet the feasibility criteria, treatment control Best Management Practices (BMPs) with biotreatment enhancement design features shall be utilized to provide treatment. LID features shall be sized to infiltrate the required design capture volume (DCV) to reduce impacts of pollutants and runoff volumes to downstream receiving waters.
- Assuming complete build-out of the project, the entire Project Site shall require approximately 5.4 acre-feet of runoff to be infiltrated to retain the runoff from the 85th percentile, 24-hour rain event. Individual developments shall be responsible for their proportionate share. Infiltration BMPs would be sized in accordance with Form 4.3-3 of the TGD for WQMPs.

- Should infiltration prove infeasible based on future geotechnical studies associated with the site-specific plans, harvest and reuse BMPs shall be evaluated as part of the future site-specific plans and WQMPs.

DF HYDRO-3: Storm Drain Infrastructure - Should the "West and East Systems Drainage Scenario," as depicted in Section IX, Hydrology and Water Quality, in Attachment B of the Initial Study be implemented by the Project, then DF HYDRO-3 shall be required. If an alternative drainage system is implemented, DF HYDRO-3 would not be required. As stated above, the final storm water design may differ from this design, as the Project's Specific Plan does not mandate specific building locations. Additionally, the final design could include green roofs, bioswales, etc. that would alter the minimum required size of the underground basin, or even eliminate the need for an underground basin. Other designs such as at-grade basins, or storm water designs that only treat individual developments could also be implemented.

Regardless, the precise drainage conveyance system design would be analyzed as part of the Water Quality Management Plan for each future, precise development consistent with State and City requirements for storm water conveyance.

If the Project Site west or east of Pepper Avenue is developed concurrently, the respective West or East drainage and water quality system would be constructed in its entirety consistent with DF HYDRO-2. In this scenario, the developers within either system would enter into a development agreement to delineate their fair share cost of design and construction of the facilities, as applicable. If the northerly portion within either system is developed prior to the southerly portion, the owner would be responsible to do one of the following;

1. Install the proposed retention/detention system within the southerly portion of the Project Site (within their respective system) as well as any drainage conveyances to and from the basin system, sized to accommodate the south site as well. This could require a development agreement for reimbursement of the fair share of costs and shared land use between both owners; or
2. Install drainage and water quality facilities to accommodate only the north portion of their respective system. This would most likely require the design and implementation of an interim Grading and Drainage Plan to mitigate any impacts to the southerly owner.

In this scenario, if the southerly portion of either system is developed prior to the northerly portion, the southern property owner would be responsible to install a drainage and water quality system within the southerly portion of the Project Site to include the anticipated demand and capacity contributed from the northerly site (within their respective system). Specifically, the proposed stormwater conveyances and retention/detention basin within each system would be sized per stormwater and water quality demand for the either the entire West system (Planning Areas 5, 6, 7 and 8) or entire East system (Planning Areas 1, 2 and 3). As such, a development agreement between owners within each system would be implemented for the reimbursement of the fair share of costs.

DF HYDRO-4: Storm Drain Fees - The applicant of each future development proposed within the Project Site shall be responsible for paying development impacts fees per Title

3 – Revenue and Finance, Chapter 3.33 – Development Impact Fees, Section 3.33.270 – Storm Drain Facilities Development Impact Fee of the Municipal Code.

Seismic

DF GEO-1: Geotechnical Investigation – Prior to the approval of a precise grading permit for any building within the Project Site, a subsequent site- and design-specific geotechnical and geologic report prepared by a licensed geologist shall be submitted to the City Engineer for review and approval. The report shall document the feasibility of each proposed use and the appropriate geotechnical, geologic, and seismic conditions associated with that use. The geologic investigation shall demonstrate that buildings for human occupancy will not be constructed across active faults and must be setback in accordance with Alquist-Priolo Earthquake Fault Zoning Act requirements. For residential uses, setback distances may vary, but a minimum 50-foot setback is required.

To demonstrate compliance with the Alquist-Priolo Earthquake Fault Zoning Act requirements, the analysis shall include the results of a subsurface investigation, including on-site trenching activities as necessary, to delineate the precise location(s) of any fault traces that could impact buildings on the future development. Unless otherwise modified, any conditions, recommendations, or construction measures contained therein, including the imposition of specified setback requirements for proposed development activities within Alquist-Priolo Earthquake Fault Zones, shall become conditions of approval for the requested use. The report shall comply with all applicable State and local code requirements, including the current building code in effect at the time of precise grading permit issuance.

DF GEO-2: Geotechnical Disclosures – Pursuant to the requirements of the Natural Hazards Disclosure Act, under Sec. 1103 of the California Civil Code, real estate sellers and brokers shall disclose to future buyers that if the Project lies within one or more state or locally mapped hazard areas, including an earthquake fault zone. This hazard shall also be disclosed on a statutory form called the Natural Hazard Disclosure Statement (NHDS) to all prospective buyers within the Project Site.

Hazards

DF HAZ-1: Soil Investigation –Soil samples shall be collected for new development within the Project Site prior to issuance of grading permits and analyzed for the presence of organochlorine pesticides and Title 22 Metals. Sampling and analysis shall be conducted in accordance with appropriate California guidelines (e.g., Department of Toxic Substances Control, 2008, Interim Guidance for Sampling Agricultural Properties). Soils with elevated organochlorine pesticides or metals compared with these guidelines shall be removed and disposed offsite in accordance applicable federal, state, and local regulations.

Public Services

DF SERVICE-1: Construction Management Plan – A construction management plan shall be developed by the applicant or contractor of each future developments proposed within the Specific Plan area and approved by the City of Rialto Public Works Department prior to construction activities. The construction management plan shall include, at a minimum, the following:

- Identify the locations of the off-site truck staging andprovide measures to ensure that trucks use the specified haul route, as applicable, and do not travel through nearby residential neighborhoods or schools;
- Schedule vehicle movements to ensure that there are no vehicles waiting off-site and impeding public traffic flow on surrounding streets;
- Establish requirements for loading/unloading and storage of materials on the Project Site;
- Coordinate with the City and emergency service providers to ensure adequate access is maintained to and around the Project Site; and
- During construction activities when construction worker parking cannot be accommodated on the Project Site, a Construction Worker Parking Plan shall be prepared which identifies alternate parking location(s) for construction workers and the method of transportation to and from the Project Site (if beyond walking distance) for approval by the City. The Construction Worker Parking Plan shall prohibit construction worker parking on residential streets and prohibit on-street parking, except as approved by the City.

DF SERVICE-2: Fire Fees – The applicant of each appliacble future developments proposed within the Specific Plan shall be responsible for paying development impacts fees per Title 3 – Revenue and Finance, Chapter 3.33 – Development Impact Fees, Section 3.33.220 – Fire Protection Facilities Development Fee of the Municipal Code.

DF SERVICE-3: Police Fees – The applicant of each appliacble future development proposed within the Project Site shall be responsible for paying development impacts fees per Title 3 – Revenue and Finance, Chapter 3.33 – Development Impact Fees, Section 3.33.210 – Law Enforcement Facilities Development Impact Fee of the Municipal Code.

DF SERVICE-4: Schools Fees – The applicant of each applicable future development proposed within the Project Site shall be responsible for paying development impacts fees to the Rialto Unified School District (RUSD) as full mitigation for potential impacts to schools pursuant to SB 50 (Section 65995 of the Government Code) and Title 17 – Subdivisions, Chapter 17.22 – School Facilities Fee, Section 17.22.120 – Facilities Fee and Section 17.22.140 – Dedication or Provision of Facilities in Lieu of Fees, of the Municipal Code.

DF SERVICE-5: Parks – The applicant of each future residential development proposed within the Project Site shall be responsible for meeting the parkland dedication or fee requirements pursuant to the Quimby Act and Title 3 – Revenue and Finance, Chapter 3.33 – Development Impact Fees, Section 3.33.150 – Parks and Recreation Development Impact Fees and Title 17 – Subdivisions, Chapter 17.23 – Park and Recreational Facilities Dedication of the Municipal Code.

DF SERVICE-6: Library Fees – The applicant of each applicable future development proposed within the Project Site shall be responsible for paying applicable development impacts fees Title 3 – Revenue and Finance, Chapter 3.33 – Development Impact Fees, Section 3.33.200 – Library Facilities Development Impact Fee of the Municipal Code.

Sustainable Design Strategies

Sustainable practices can lessen the environmental impacts of development with techniques that include compact development, reduced impervious surfaces and improved water detention and conservation, and improved pedestrian and bicycle amenities that reduce reliance on the automobile.

Because the concept of sustainability is still evolving, it is anticipated that new sustainable strategies would be continually developed during the build-out period of the Specific Plan. The Specific Plan encourages the implementation of realistic sustainable design strategies into the Project design. As discussed in Chapter 4, Design Guidelines, of the Specific Plan, sustainable design strategies that may be utilized in the Specific Plan include the following:

Site Planning

Elements of sustainable design and site planning may include, but not be limited to, the following:

- Encourage developing a Traffic Demand Management program that supports alternatives to single occupancy vehicle use.
- Provide physical linkages throughout the Project Site that promote bicycling and walking.
- Consider the use pf pervious materials for walkways, trails, driveways and parking lots.
- Minimize the amount of paved areas for roads, parking and patios where feasible.
- Concentrate development near local services and amenities.
- Encourage shared parking where determined possible.
- Preserve sensitive resources.
- Create open space amenities.

Energy Efficiency

Most buildings can reach energy efficiency levels that exceed California Title 24 standards, yet many only strive to meet the standard. It is reasonable to strive for energy reduction in excess of that required by Title 24 standards. At a minimum, all projects would also be required to comply with the California Green Building Standards. Where feasible and appropriate, the following strategies are encouraged, but not required:

- Passive design strategies can dramatically affect building energy performance. These measures include, but are not limited to, building shape and orientation, passive solar design, and the use of natural lighting.
- Incorporate the use of low-E windows or use Energy Star windows.
- Use a properly sized and energy-efficient heating/cooling system in conjunction with a thermally efficient building shell.
- Consider utilizing light colors for wall finish materials.
- Install high R-value wall and ceiling insulation.

- Installation of solar water heating systems that use rooftop solar technologies to offset natural gas use**.**
- Encouragement for new commercial businesses to install rooftop solar photovoltaic systems.
- Encouragement of new commercial and industrial facilities greater than 100,000 SF to install co-generation facilities that combine heat and power systems for energy output.

Development within the Project is encouraged to implement some of the strategies of the Energy Star program, which is an energy performance rating system developed by the U.S. Department of Energy and the Environmental Protection Agency. The program certifies products and buildings that meet strict energy-efficiency guidelines. Involvement in the Energy Star program would be completely optional at the discretion of the developer/builder.

Materials Efficiency

Select sustainable construction materials and products by evaluating characteristics such as reused and recycled content, zero or low off gassing of harmful air emissions, zero or low toxicity, sustainably-harvested materials, high recyclability, durability, longevity, and local production. Such products promote resource conservation and efficiency. Using recycled-content products also helps develop markets for recycled materials that are being diverted from California's landfills, as mandated by the Integrated Waste Management Act.

- Encourage the use of low VOC paints and wallpapers.
- Encourage the use of low VOC Green Label carpet.
- Use dimensional planning and other material efficiency strategies. These strategies reduce the amount of building materials needed and cut construction costs.
- Design with adequate space to facilitate recycling collection and to incorporate a solid waste management program that prevents waste generation.
- Establish a construction waste recycling program with a local waste management company, with a goal of recycling no less than 50 percent of the construction waste generated by construction of the project. Excavated soil and land-clearing debris does not contribute to this requirement.
- The waste disposal company shall be responsible for providing recycle bin(s) to facilitate recycling.

Water Efficiency

Elements of water efficiencies may include, but not be limited to, the following:

- Minimize water usage by installing ultra-low-flush toilets, low-flow shower heads and other water conserving fixtures.
- Use state-of-the-art irrigation controllers and self-closing nozzles on hoses.
- Minimize turf areas within the community.
- Use a climate driven plant selection that specifies native, non-invasive, and drought tolerant plants requiring minimal or no irrigation.
- Use green waste mulch and soil amendments to retail soil moisture.

Occupant Health and Safety

- Choose construction materials and interior finish products with zero or low emissions to improve indoor air quality.
- Provide effective drainage from the roof and surrounding landscape.
- Install adequate ventilation in bathrooms.

G. Anticipated Construction Schedule

The timing of development within the Project Site would be subject to local, regional, and national market conditions. Accordingly, the Project Site could be developed in one or more phases, with the earliest construction beginning in late 2017. No uses would be opened prior to 2017 (opening year). The build-out year would be 2035.

H. Necessary Approvals

It is anticipated that approvals required for the Project would include, but may not be limited to, the following:

- Approval of the General Plan Amendment: A General Plan Amendment would be necessary to change the entire Project Site from the current General Plan land use designation of the entire property from "Residential 6" to "Specific Plan" on the City's General Plan Land Use Map.
- Approval of the Specific Plan: The Pepper Avenue Specific Plan has been prepared to realize the objectives of the Project as defined in the Specific Plan. The Specific Plan would be adopted by resolution by the City of Rialto City Council, with the Development Standards chapter adopted by ordinance.
- Approval of a Zone Change: A zone change would be necessary to change the zoning of the Project Site from the current "Single-Family Residential" (R-1A) to "Pepper Avenue Specific Plan" on the City's zoning map.
- Approval of Tentative Tract/Parcel Maps (TTM/TPM): TTMs and/or TPMs would be necessary to develop some of the Project Site.
- Certification of the Environmental Impact Report (EIR): This EIR has been prepared in accordance with CEQA and the CEQA Guidelines. The City of Rialto would consider certification of the EIR prior to taking action on the requested approvals.
- Adoption of Mitigation Monitoring Program: The City would evaluate and adopt a Mitigation Monitoring Program (MMP), which will be considered by the City related to the changes made to the Project or conditions of Project approval that were adopted to mitigate or avoid significant effects on the environment.
- Section 404 Permit: United States Army Corps of Engineers, Clean Water Act (CWA) Section 404 Permit may be required, as necessary.
- Section 401 Permit: Santa Ana Regional Water Quality Control Board CWA Section 401 Permit may be required, as necessary.

- Streambed Alteration Agreement: California Department of Fish and Wildlife Streambed Alteration Agreement under Section 1602 of the California Fish and Game Act may be required, as necessary.
- Section 7 Consultation: Formal consultation with the U.S. Fish and Wildlife Service pursuant to Section 7 of the Federal Endangered Species Act may be required, as necessary.
- Subsequent discretionary approvals from the City of Rialto (i.e., Conditional Permit, Site Development Permit).
- Other permits or approvals, as necessary.

CHAPTER 3
Basis for Cumulative Analysis

The California Environmental Quality Act (CEQA) requires that Environmental Impact Reports (EIRs) analyze cumulative impacts. As defined in CEQA Guidelines Section 15355, a cumulative impact consists of an impact which is created as a result of the combination of the Project evaluated in the EIR together with other projects causing related impacts. CEQA Guidelines Section 15130(a) states that an EIR must discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, as defined in Section 15065(a)(3). Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but must briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. However, an EIR should not discuss impacts which do not result in part from the project evaluated in the EIR. Furthermore, when the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant, the EIR must briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR. A lead agency must identify facts and provide analysis supporting the lead agency's conclusion that the cumulative impact is less than significant.

In addition, CEQA Guidelines Section 15130(b) indicates that the analysis of cumulative impacts shall reflect the severity of the impacts and the likelihood of occurrence, but the discussion need not provide as great a level of detail as is provided for the effects attributable to the project alone. Instead, the discussion should be guided by the standards of practicality and reasonableness, and should focus on the particular impacts to which the other related projects contribute to cumulative effects in conjunction with the proposed project, rather than those attributes of the other related projects that do not contribute to the cumulative impact in conjunction with the proposed project.

As indicated above, "cumulative impacts" are defined as "two or more individual effects which, when considered together, are considerable or compound or increase other environmental impacts." A project has "cumulatively considerable" impacts when its incremental effects "are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."

For an adequate discussion of significant cumulative impacts, the CEQA Guidelines allow an EIR to determine cumulative impacts and reasonably foreseeable growth based on either of the following methods:

- A list of past, present, and probable future projects producing related or cumulative impacts; or
- A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental planning document which has been adopted or

certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

For the purposes of the cumulative impacts analysis for the Project, the list of "related projects" was developed by the City by reviewing the most current list of approved, pending, or reasonably foreseeable projects in the City's project status database. Projects identified within the general area of the Project Site were confirmed by City staff to be current or probable future developments with the potential to contribute to cumulative effects in conjunction with the Project given their proximity and anticipated development intensity. The City identified seven related projects (with a total of 15 various components), which are summarized in **Table 3-1**, *List of Related Projects*. The locations of the related projects are shown in **Figure 3-1**, *Related Projects Map*.

Although the projects listed below serve as the primary bases for evaluation of cumulative impacts, the approach to these analyses vary for certain environmental issues. According to CEQA Guidelines Section 15130 (b)(3), the City has established a general geographic scope of the area affected by the potential cumulative effects based on the potential for the Project and related projects to contribute impacts within a particular distance from the Project Site, jurisdiction, viewshed, watershed, air basin, service area, or other geography, as applicable. The specific geographic scope for each environmental issue analyzed in this EIR is provided below.

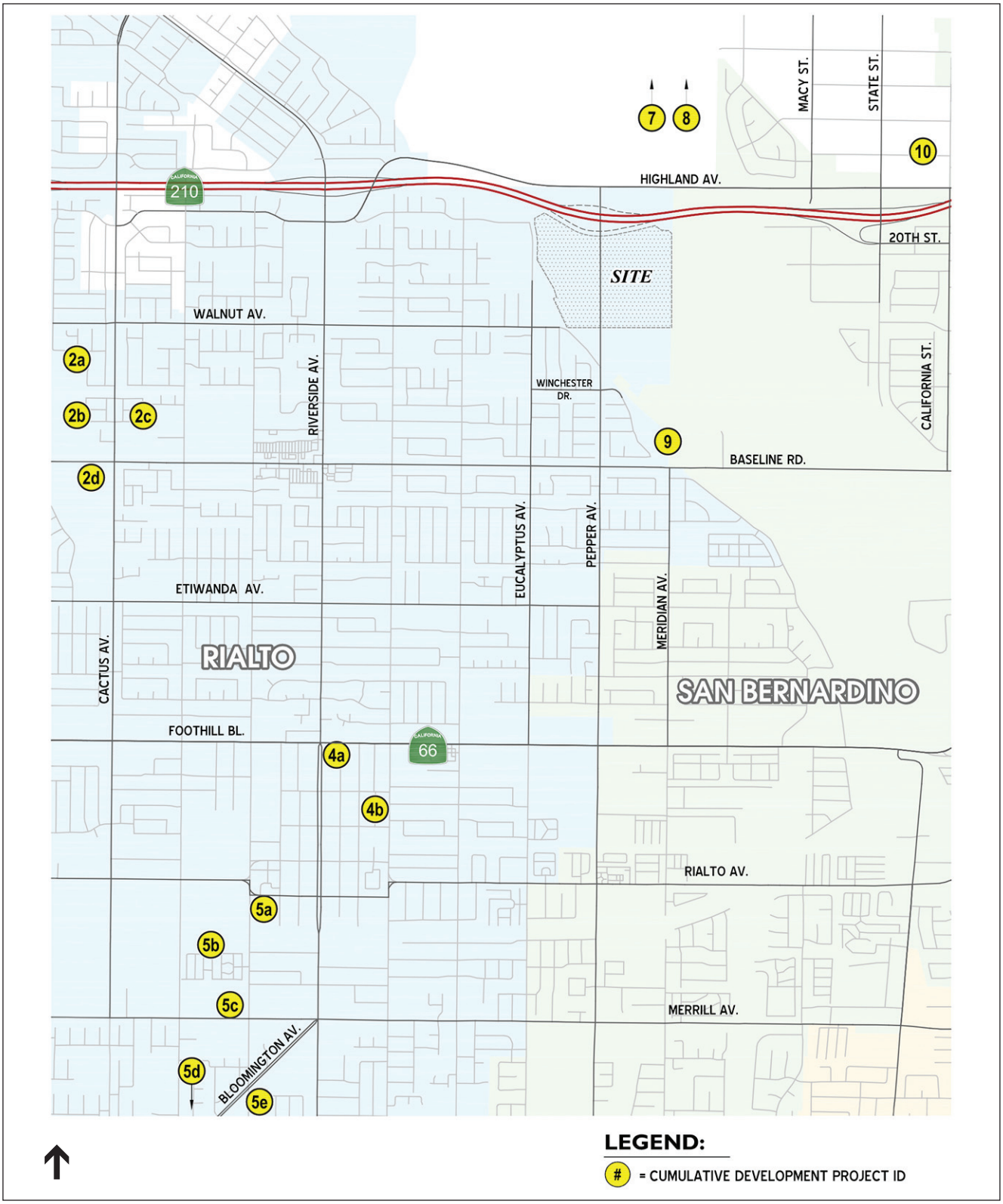
- The scope for cumulative analysis of impacts related to aesthetics and views is the viewshed surrounding the Project Site, as only those projects that can be viewed in the context of the Project could contribute to cumulative visual effects.
- The geographic scope of cumulative effects for air quality and global climate change is the South Coast Air Basin, since all regional air emissions from development within the area occur within the Basin.
- The cumulative analysis of effects on biological resources considers species and habitats within a specific geographic area in which one would expect to find in the Specific Plan Project Site.
- The geographic scope for archaeological and paleontological resources is based on the Specific Plan Project Site.
- Land use and planning impacts generally affect the jurisdiction in which projects are located, and therefore the geographic context for cumulative analysis is the related projects study area in the City of Rialto.
- Noise effects are by nature localized, and therefore potential cumulative noise impacts are analyzed for those identified related projects in close enough proximity to the Project Site to increase ambient noise levels on-site or in the immediate Project vicinity and include cumulative traffic gains from the Pepper Avenue/SR-210 Freeway interchange.
- The geographic context for cumulative traffic and circulation impacts is the area within which related projects could measurably affect traffic circulation within the street network serving the Project Site and thus could contribute to cumulative traffic impacts at affected facilities. In addition to the traffic associated with the identified related projects, the cumulative traffic analysis also includes an overall growth factor of 1.21 percent per year to account for smaller projects and other ambient growth in the City of Rialto and the Specific Plan Project Site.

Cumulative analyses for each environmental issue are provided in their respective environmental subsections in Chapter 4.0, Environmental Impact Analysis, of this Draft EIR.

TABLE 3-1
LIST OF RELATED PROJECTS

Project ID	Land Use	Units or Floor Area
2a	Single Family Detached Residential	24 residences
2b	Single Family Detached Residential	23 residences
2c	Shopping Center	4,800 square feet
2d	Single Family Detached Residential	132 residences
4a	Two-story Office Building	990 square feet
4b	Apartment Building	5 residential units
5a	Single Family Detached Residential	29 residences
5b	Single Family Detached Residential	17 residences
5c	Single Family Detached Residential	65 residences
5d	Shopping Center	6,340 square feet
5e	Single Family Detached Residential	70 residences
7	Industrial Park	1,789,990 square feet
8	Single Family Detached Residential	304 residences
9	Shipping Center Storage Yard	12,000 square feet
10	Discount Store	12,406 square feet

SOURCE: Urban Crossroads, Pepper Avenue Specific Plan Traffic Impact Analysis, January 2016.



SOURCE: Urban Crossroads, 2016

Pepper Avenue Specific Plan

Figure 3-1

Related Projects Map

ESA PCR

CHAPTER 4
Environmental Impact Analysis

A. Aesthetics

1. Introduction

This section addresses potential aesthetic and visual resource impacts that could result from the proposed Specific Plan with regard to visual quality, views, and light and glare. The analysis presented in this section is based on a review of applicable plans and regulations, including the City of Rialto General Plan (General Plan), the Rialto Municipal Code, the Pepper Avenue Specific Plan, and Project Site reconnaissance by ESA PCR staff.

(1) Views

A scenic vista is generally defined as a view of undisturbed natural lands exhibiting a unique or unusual feature that comprises an important or dominant portion of the viewshed. Scenic vistas may also be represented by a particular distant view that provides visual relief from less attractive views of nearby features. Other designated federal and state lands as well as local open space or recreational areas may also offer scenic vistas if they represent a valued aesthetic view within the surrounding landscape. The analysis of view impacts applies to the effects of a project on publicly available views of scenic vistas or valued views of aesthetic resources. Vantage points offering views may be a single location or a linear vantage, such as a roadway or trail. The degree of degradation or obstruction of views of valued resources is the basis for the determination of potential view impacts.

(2) Visual Character

"Visual character" refers to the appearance of an area or site and its relationship to the surrounding built or natural environment. An area's visual character is based on the physical appearance and characteristics of the environment, such as the proximity and balance of man-made structures with open space or landscaping, or built landmarks, such as bridges or buildings. As an overview, the analysis of visual character begins with the identification of the visual resources in relation to the surrounding environment, as well as the visual access to these resources. Certain visual resources are generally perceived to possess valuable attributes. Land uses, as well as natural features, are urban features of the landscape and, of these features, some may also be considered to be visual resources.

The analysis of visual character considers such characteristics as building siting, setbacks and articulation, mass, height, architectural finishes, and landscape and hardscape treatments, and

assesses the degree of compatibility or contrast with other features on the Project Site and land uses in the Project area. Visual character functions as a point of reference in assessing whether the project's features would appear to be compatible with the established surrounding environment. Adverse visual quality impacts considered within the analysis include the loss of existing valued aesthetic features and the introduction of contrasting features that contribute to a decline in the overall visual character (e.g., the introduction of contrasting features that overpower familiar features, eliminate context or associations with history, or create visual incompatibility where there may have been apparent efforts to maintain or promote a thematic or consistent character). In general, the evaluation of visual character is determined by the degree of contrast that could potentially result between the Project and its setting, including the existing natural and built environments.

(3) Light and Glare

Artificial light impacts are typically associated with ambient light levels during the evening and nighttime hours. Sources may be stationary, such as streetlights and illuminated signage, or mobile, such as vehicle headlights. Certain land uses such as residences and hotels are considered light sensitive since typically they are occupied by persons who have an expectation of privacy during evening hours and are subject to disturbance by bright light sources. The analysis of lighting impacts focuses on whether the Project would cause or substantially increase lighting effects on light-sensitive uses.

Glare is primarily a daytime occurrence caused by the reflection of sunlight or artificial light from highly polished surfaces, such as window glass or reflective materials and to a lesser degree from broad expanses of light-colored surfaces. Glare can also be produced during evening and nighttime hours by artificial light directed toward a light-sensitive land use. The analysis of glare focuses on whether glare effects would interfere with glare-sensitive activities.

2. Environmental Setting

a. Existing Conditions

(1) Visual Character

(a) Visual Character of the Project Site

The visual character of the Project Site is that of a predominantly undeveloped and disturbed open space. Photographs of existing conditions are provided in **Figure 2-3**, *Existing Site Photographs*, in Chapter 2, Project Description. As shown in these photographs, the Project Site is visible from surrounding streets and highways, including Eucalyptus Avenue, Easton Street, Walnut Street, and the Foothill Freeway (SR-210), and from the newly constructed Pepper Avenue extension, which bisects the Project Site. As shown in Figure 2-3, Photographs 3 and 4, the San Bernardino Mountains are visible in north-facing views across the Project Site. The Project Site slopes gradually to the southeast. A cross section of the area indicates that Eucalyptus Avenue near the Site's west boundary is approximately 1,311 feet above mean sea level (amsl), dropping to approximately 1,284 feet amsl at Pepper Avenue and to approximately 1,267 feet

amsl at the east boundary. A southeasterly-flowing drainage, which eventually empties into Lytle Creek, runs through the southeast portion of the Site.

As shown in Figure 2-3, Photograph 3, the portion of the Site to the west of the Pepper Avenue contains patches of alluvial fan sage scrub. A storage tank associated with the existing West Valley Water District (WVWD) facility in the southeast portion of the Site is also visible in Photograph 3. The portion of the Site to the east of Pepper Avenue and to the north of the WVWD facility appears to be regularly disked and, as such, exhibits minimal native habitat or other visual resources.

(b) Visual Character of Surrounding Uses

Frisbie Park, a City public park adjoins the northwest sector (habitat area) of the Project Site. The 35-acre park provides manicured lawns, shade trees, picnicking areas, a children's playground, basketball courts, three lighted Little League fields, three girls' softball fields. Frisbie Park, located at approximately 1,328 feet to 1,311 feet amsl (west to east) has aesthetic value as both a view vantage point and as recreational open space visible from adjacent streets.

Single-family neighborhoods are located to the west and southwest of the Project Site. SR-210 is located immediately to the north of the Project Site. Highland Avenue and a sand and gravel mining operation are located to the north of the freeway and the Lytle Creek wash flowing from the San Gabriel Mountains to the northwest are located to north of the mining operation.

The Riverside Highland Water Company property, the BNSF Railroad spur, and the Lytle Creek Wash (trending in a southeast/southwest) in the City of San Bernardino are located immediately to the east. A semi-rural residence and open fields are located to the east of the Site just beyond the railroad line to the east of the WVWD facility. Another sand and gravel mining operation is located at the immediate southeast of the Project Site.

The Lytle Creek Wash, water storage tanks and open, disked fields are located to the immediate south of the Project Site. Utility lines in the area are above ground. The freeway, residential neighborhoods, railroad, industrial uses, the wash, disked fields and other surrounding uses to the north, east and south do not feature historic or substantial natural aesthetic features or aesthetic character. With the exception of Frisbie Park, the uses immediately surrounding the Project Site do not constitute visual resources or possess unique visual character.

(2) View Resources

(a) Scenic Routes

The State Scenic Highway System includes a list of highways that are either currently designated as scenic highways by the State or are eligible for that designation. Local and state records do not identify any designated or eligible scenic highways within, or in the immediate vicinity of, the Project Site.

(b) Scenic Vistas

Foreground and mid-distance views of the Project Site have limited scenic value. However, the long-distance background viewshed, particularly to the north, is dominant and represents a scenic vista of the San Bernardino Mountains (located approximately six miles to the north) and the San Gabriel Mountains located farther to the northwest. The City's General Plan notes that views of the San Gabriel and San Bernardino Mountains and the foothills provide the perfect backdrop for creating scenic vistas and that views of natural landforms should be protected to help develop a "sense of place." According the General Plan, the City should take great care in ensuring that building heights and scale of projects do not hinder or impede scenic views (Rialto 2010).

(3) Light and Glare

Existing nighttime lighting within the Project Site consists of street lights along Pepper Avenue. Other light sources, such as lighting for the WVWD's Lord Ranch Facility in the southeast portion of the sit, are minimal. Lighting in the surrounding area consists of light emanating from streetlights, illuminated signage and vehicle lights on the 210 freeway, headlights on local and arterial streets, porch lights and light spillage from residences in the surrounding residential neighborhoods, and ballfield and parking lot lights in Frisbie Park Nighttime illumination is lowest in the area's residential neighborhoods and undeveloped portions such as the on-site vacant land, and highest along the SR-210 corridor and Frisbie Park, particularly during evening use of the ballfields. Sensitive uses with respect to artificial or nighttime light and glare in the Project vicinity are the residential neighborhoods located to the west and south of the Specific Plan area.

Daytime glare in the area is generally associated with sunlight reflected vehicles. No large continuous expanses of highly reflective materials occur in the vicinity. Activities that would be sensitive to daytime glare from reflected sunlight include motorists traveling on the adjacent roadways or the 210 Freeway. No free-standing, illuminated signage or unusual high intensity lighting that would potentially generate significant glare occur on or near the Project Site. Some reflectivity from existing buildings occurs in association with existing development in the area; however, no glare that interferes with driving conditions has been observed during field inspections of the area. Nonetheless, given the proximity and elevated nature of SR-210 in the Project area, a limited potential exists during some seasons for reflected afternoon glare from the vehicles along the highway.

b. Regulatory Framework

The following discussion identifies and generally describes the regulatory plans and policies and ordinances that would be applicable to development at the Project Site under the Project. Specific provisions of those documents that pertain to the Project are listed in the Impact Analysis section below and evaluated for consistency with the Project features.

(1) City of Rialto General Plan

(a) City of Rialto General Plan

The General Plan is expected to provide clear direction to the City leaders regarding the form and aesthetic character of development. The goals and policies of the General Plan are intended to implement the community's vision and the implementation of these goals and policies are set forth in the City's regulatory documents. The organizing principle of the Community Design component of the City's General Plan Land Use, Community Design, Open Space, and Conservation Element is to create, in conjunction with the Land Use section, guidelines for the physical characteristics of the built environment, the scale of buildings, their relationship to one another, architectural details, neighborhood appearance, and streetscapes. The intent of the General Plan Community Design component is to create a sense of place that interprets the community's values and culture as projected upon the built environment.

Under the Community Design component, the City would encourage the enhancement and embellishment of public space, including properties, rights-of-way, and larger areas that the City owns and controls and can enhance through urban design strategies, such as pedestrian friendly design. To enhance pedestrian friendliness, the General Plan encourages commercial developments and neighborhoods to be compact and include a network of paths and walkways that connect people to key destinations. Commercial buildings are encouraged to create a pedestrian scale by providing windows and store fronts facing sidewalks and avoiding long expanses of blank walls. The focus on pedestrian friendliness in the Community Design Element supports a variety of the City's objectives by (i) stimulating commercial districts by generating foot traffic along store fronts; (ii) creating additional means of access to service; (iii) improving the quality of life for those without access to motorized vehicles; (iv) encouraging healthier lifestyles and exercise; and (v) fostering a sense of community and social connection in residential neighborhoods.

Another objective of the Community Design component is to provide well-marked and pedestrian- scaled intersections and crossings to ensure the safety of pedestrians in proximity to motor vehicles and to avoid intimidating pedestrians from crossing a street. Both commercial and residential developments are encouraged to integrate pedestrian amenities such as benches, street-lighting, and attractive and functional landscaping. Amenities such as trees along sidewalks are encouraged because they provide shade and comfort in warm and sunny weather, as well as adding to the walking experience. Decorative street lighting is also supported by the General Plan to improve the aesthetics of a development as well as providing safety and visibility for pedestrians during the night time.

The General Plan sets forth policies to provide unique identity along the City's prominent entrances. Such gateways include design features such as signage, landscaping, and other elements to create a distinct aesthetic tone. In addition, gateway features help to slow traffic at key locations, functioning as traffic-calming devices. Under the General Plan, new gateways should be considered for new major development projects. Gateways may occur on major streets near freeway on- and off-ramps that identify entry into the City or as smaller entryways on streets that cross City boundaries.

Signage, such as free standing commercial signs that advertise a shopping center, signs affixed to the facades of buildings, and public signs such as directional signs or gateway signs, are considered to serve an important function for aiding businesses and providing information. The uncontrolled use of signs that dominate the landscape, distract the public, and adversely affect the aesthetics of the community is discouraged. The General Plan standards for the design and placement of signage for new developments require that signs complement the quality and design of the developments they intend to serve by utilizing the same architectural style, similar color palette, and matching materials. Poor sign construction and haphazard placement of signs is also discouraged. To maintain the integrity of developments, the General Plan requires the City to monitor and ensure that signs are properly maintained, and that inoperable or unused/outdated signs are removed.

Under the General Plan, landscaped and tree-lined corridors would also improve the visual quality of the community's major streets. Buildings along these corridors should complement the streetscape and provide an atmosphere that accommodates both pedestrians and automobiles. Special consideration should be given to street furniture and pedestrian friendly lighting. Corridors should include continuous sidewalks with wide parkways that establish pedestrian connections from the residential neighborhoods to commercial districts, parks, job centers, and other activity areas. Street trees should be of appropriate height and stature for the scale and function of the street.

In the private realm, the General Plan provides policies for architectural style that would give each building a distinct character and feel. The General Plan allows that a building, development, or neighborhood can be designed in a variety of diverse architectural styles that are prominent throughout Southern California. Cohesiveness in a development and/or neighborhood is preferred and achieved by the use consistent architectural themes. New development should pay respect to site context and the predominant existing style as to maintain visual harmony. According to the General Plan, form (the physical design of a building) can be manipulated to produce buildings that are visually pleasing. Visual interest and diversity can be achieved through the use of varying heights, mass, density, and fenestration (placement of windows) of buildings so as to not have the same building design repeated. Developments should utilize high-quality materials that are durable and properly reflect the chosen style of architecture. As with style, new buildings and renovations should continue to be compatible with the form of adjacent buildings.

Design should incorporate building materials that are environmentally sound (recyclable, quickly regenerates, and produced with limited impacts to the environment) and buildings should be oriented to maximize the amount of light and heat that penetrates the interior. The General Plan also requires the City to take great care in ensuring that building heights and scale of buildings do not hinder or impede scenic views of the mountains and that building materials in such locations are carefully selected to not produce glare or other distracting occurrences (Rialto 2010).

(b) City of Rialto Municipal Code

The City of Rialto Municipal Code contains several regulations related to visual character and lighting. Municipal Code Section 11.08.030 applies to street landscaping. Under Section 11.08.030, the City shall develop and maintain a street tree plan including a master list of trees

approved for planting in streets and parkways throughout the city. The plan would include rules and regulations governing the planting, location, spacing and maintenance of the various varieties of the listed trees. No persons shall plant or install any tree upon any portion of any street, park, parkway or other public property which does not conform to the type, variety, location and spacing designated by the director for that area.

The purpose of Municipal Code Chapter 18.61, Design Guidelines, is to promote a desired level of future development quality in the city of Rialto to (i) contribute a positive visual image; promote high quality development; (iii) provide matters of design and aesthetics within the zoning code; and (iv) implement the goals and policies of the General Plan.

Any new development must adhere to the design guidelines and, under 18.61.030, building placement that creates opportunities for plazas, courts, patio areas, or gardens are encouraged; focal points and public site entrances shall receive special landscape or architectural treatment to enhance the streetscape; and specialty decorative paving materials shall be used to enhance and identify building entries, plazas, and seating/patio areas. Multiple buildings shall be clustered on-site to achieve a "village" scale. This creates opportunities for plazas and pedestrian areas while preventing long rows of buildings. When clustering is impractical, a visual link shall be established between buildings.

Under Section 18.61.040, residential dwellings shall be arranged in a manner that creates a harmonious, varied appearance of building heights and setbacks. Dwellings shall be placed at varying distances from the front property line. A majority of the primary living spaces within a residential building shall receive direct sunlight for the daylight hours. Residential buildings shall be positioned to minimize the impact of shadows on adjacent properties. Landscaping and building architecture shall be designed to provide shade in the summer and sunlight in the winter.

Section 18.61.050 requires that commercial buildings locate loading areas and circulation driveways, trash and storage areas, and roof-mounted equipment be as far as feasible and practical from adjacent residences; adjacent residential and nonresidential uses be segregated as is necessary to maintain a livable residential environment by design elements such as masonry walls, landscape berms, building orientation and activity limitation; and trees shall be planted to screen parking areas and large commercial building walls in order to provide a visual barrier between commercial and residential uses. "L" shaped retail centers shall be avoided. Retail centers shall incorporate either a clustered type development or utilize at the street edge for visual interest.

Buildings shall be oriented parallel streets used by the public and shall be placed as close to those streets as established setbacks permit to allow buildings rather than parking areas to define the street edge. Other such design techniques, to define the street edge, include but not limited to: (i) buildings shall be placed at their front setback lines; (ii) on larger project sites, such as retail centers, thirty percent of the total building frontage be located at the front setback line. Such siting, together with substantial landscape treatment, is considered to reinforce and strengthen the streetscape, and screens the parking area; and only building entrances shall be oriented to face streets used by the public, never blank walls or loading areas, shall face streets used by the public.

Building design requirements under Section 18.61.060 require desirable colors on building exteriors, including muted natural colors, earth tone colors, pastel colors, and natural stains. No undesirable colors on building exteriors, such as fluorescent neon, bright colors as the primary wall color or primary colors (red, yellow and blue) as the primary wall color are permitted. Under Section 18.61.060.C, wall and ground sign design, material, and color shall be compatible with the building design on-site.

Residential building design under Section 18.61.070 requires that building design shall respect the predominant characteristics of neighborhood development, such as height, massing, setbacks, materials and architectural style. Unless appropriate to an architectural style, windows shall not be flush with walls. Glass shall be inset a minimum of three inches from the exterior wall and/or frame surface to add relief to the wall surface. Within multi-story buildings, stepping back upper floors shall be considered in order to diminish building mass.

Reverse floor plans are not included as different floor plans. For development projects that are to be constructed in phases, a phasing plan shall be submitted to assure that the requirements for the number of floor plans is being met. Front porches are encouraged to facilitate activity in front yards and to provide a semipublic transition zone between the dwelling and the street used by the public. Each vertical module of units shall incorporate architectural features that help to individually distinguish them, such as a wall break, projections, distinct color schemes, and individual roof treatments.

Facades of long buildings shall be architecturally subdivided into shorter segments of fifty feet maximum by incorporating facade protrusions, varying roof forms, varying setback of the building footprint. Architectural design treatments such as building offsets, recessed windows, offset roof plans, trellis, overhangs, columns, or other features shall be used to create both vertical and horizontal articulations on the building elevations. These design elements shall also be included on the rear and side facades of buildings which are adjacent to or visible from streets used by the public or open space areas.

Commercial building design regulations under 18.61.080 require that main building entrances are well defined. The entrances shall be visually and functionally distinct, pedestrian-oriented and visible from the adjacent street system. In order to avoid long, monotonous building facades and to create diversity, building facades greater than one hundred feet in length shall incorporate wall plane projections or recesses having a depth of at least three feet to break up the expansiveness of the exterior. The building design shall provide architectural and visual interest. Such design elements shall include the following roof treatments, roof overhangs, arcades, articulated mass and bulk, courtyards and patios, tower elements and recessed doors and window openings. Large blank, flat walls, flat roofs, square "box-like" buildings, highly reflective surfaces such as metal, exposed pip columns, and most types of plywood siding. Facades shall be articulated to reduce the massive scale and the one-dimensional appearance of large buildings and provide visual interest. The overall intent is to encourage a more human scale. Facades, exterior walls and entryways shall provide consistent architectural treatment. Facades that face streets used by the public or are visible to residential properties shall have a variety of windows, entry areas,

awnings or other such features along no less than fifty percent of their horizontal length unless the structural integrity of the building is at stake.

Facades that do not face a street used by the public shall incorporate a repeating pattern that includes, but not limited to, color change, texture change and material change, each of which shall be integral parts of the building. Buildings shall be designed to be viewed from all sides. Blank walls and facades shall not be permitted except as required for the structure integrity of the building. Buildings shall provide protection for pedestrians from adverse weather conditions and not limited to utilizing overhangs, marquees, and awnings at entrances, along pedestrian pathways, and at transportation waiting areas. A decorative trellis, canopy, or other overhang shall be constructed over a drive-thru window and extend across the entire width of the drive-thru aisle. Landscaping shall also be provided. Service doors shall be recessed and integrated into the overall design of the building.

Pertaining to roofs, Section 18.61.090, disallows the location of equipment on the roof of a building unless the equipment can be hidden by building elements that are designed for that purpose as an integral part of the building design. Roof-mounted equipment must be fully screened by parapets roof screens or equipment wells; or roof-mounted equipment must be screened from public view by materials similar to those used in the overall structure and designed to minimize noise. To add interest and reduce the massive scale of large buildings, variations in roof lines shall be used through the use of overhanging eaves, parapets, pop-outs, height variations, and entrance features. In addition, roofline variations shall be used to demarcate primary building entrances.

Section 18.61.100, materials and colors on building exteriors of all elevations of a building shall be coordinated to provide a total continuity of design. Alteration of colors and materials shall be used to produce diversity and provide visual and architectural interest.

Section 18.61.140, Lighting, requires lighting to be designed as an integral part of the overall site and building design. The design of the light fixtures and their structural supports shall be architecturally compatible with on-site buildings and be architecturally integrated into the design of a building. All exterior lighting shall be coordinated as to style, material, and color and designed to avoid spillover glare beyond the site boundaries, particularly where incompatible uses are located in close proximity. Neutral and earth-tone color lighting fixtures with other appropriate measures to conceal the light source from adjoining properties and adjacent street used by the public shall be required.

Exterior lighting shall provide illumination for the security and safety of on-site areas such as entrances, exits, parking, loading, shipping and receiving, pathways, and other work areas. All building facade recesses shall be well lit to encourage a safe environment. Night lighting shall be provided for all pedestrian movement paths such as walkways and where stairs, curbs, ramps, and crosswalks occur. The level of lighting shall not exceed one-half foot-candle at any residential property line or one foot-candle at any nonresidential property line.

Under Section 18.61.160, service, storage and loading areas shall not face onto streets used by the public, wherever possible. When these features must face a street used by the public due to site

constraints, they shall be screened with a solid decorative wall, berm, trellises, and/or landscaping.

3. Project Impacts

a. Methodology

(1) Views

The analysis of views is to identify the extent to which the Project would interfere with visual access to visual resources from a vantage point or corridor. "Focal views" consist of views of a particular object, scene, setting, or feature of visual interest; "Planning Panoramic views" or vistas consist of views of a large geographic area for which the view may be wide and extend into the distance. Structures and other elements constructed or added to a project may obstruct focal or Planning Panoramic views. The City of Rialto has recognized the value of access to visual resources through planning and zoning regulations that help prevent the obstruction of views. These standards include the regulation of building height and mass, which are principal issues regarding view obstruction.

A viewshed is an area that can be seen from a given vantage point and viewing direction. A viewshed is composed of foreground items (items closer to the viewer) that are seen in detail and background items (items at some distance from the viewer) that frame the view. The intent of the evaluation of viewsheds is to determine if valued visual resources exist and whether valued visual resources would be blocked or diminished as a result of project development based on the anticipated maximum structural heights, setbacks, and development density. The evaluation further considers whether the Project would enhance viewing conditions through the creation of new resources and whether the Project includes design features that would offset or mitigate specific impacts.

A viewing location must include views of scenic resources that are available to the public. Under CEQA, an office building or private residence would not be considered a viewing location since views of broad horizons, aesthetic structures, and other scenic resources would not be available to the public. In addition, the California courts have routinely held that "obstruction of a few private views in a project's immediate vicinity is not generally regarded as a significant environmental impact." (Banker's Hill, Hillcrest, Park West Community Preservation Group v. City of San Diego, 139 Cal. App. 4th 249, 279 [2006]).

(2) Visual Character/Quality

The evaluation of visual character pertains to the degree and nature of contrast between the Project and its surroundings. In the analysis of visual character, the existing visual properties of the Project Site are compared to the expected appearance of the Project Site and the surrounding area to determine whether the visual character of the area would be degraded. Factors such as changes in the appearance of the Project Site, building height and standards and regulations contained in the General Plan, zoning code, and Pepper Avenue Specific Plan are taken into account. The evaluation, therefore, considers the amount or relative proportion of existing

features or elements that substantially contribute to the valued visual character or image of the area that would be removed, altered or demolished. It takes into consideration the amount of natural open space to be graded or developed, the degree to which proposed structures in natural open space areas would be effectively integrated into the aesthetics of the site through appropriate design, the degree of contrast between proposed features and the area's existing features that represent its valued aesthetic image, the degree to which the Project would contribute to the area's aesthetic value, and applicable guidelines and regulations.

(3) Light and Glare

The analysis of light and glare identifies the location of light-sensitive land uses and describes the existing ambient conditions on the site and in the vicinity. The analysis describes the Project's proposed light and glare sources, and the extent to which Project lighting, including illuminated signage, would spill off the Project Site onto light-sensitive areas. The analysis also describes the affected street frontages, the direction in which the light would be focused, and the extent to which the Project would illuminate sensitive land uses. The analysis also considers the potential for sunlight to reflect off building surfaces (glare) and the extent to which such glare would interfere with the operation of motor vehicles or other activities.

(4) Consistency with Regulatory Framework

The evaluation of aesthetic resources also compared the Project to the standards and policies set forth in the General Plan and Municipal Code. These include the applicable goals and policies of the Community Design component of the City's General Plan. Consistency with the City's policies applicable to aesthetic elements, such as landscaping, streetscape, building design, lighting and other requirements is an indicator of a project's aesthetic character. Note that comparison to the Municipal Code is to indicate the general consistency of the Specific Plan with the City's aesthetic principles.

b. Significance Thresholds

Appendix G of the CEQA Guidelines contains the Initial Study Environmental Checklist form used during preparation of the Project Initial Study, which is contained in Appendix A of this EIR. The Initial Study Environmental Checklist questions relating to aesthetics have been utilized as the thresholds of significance in this section. Accordingly, the Project may create a significant environmental impact if it would result in one or more of the following:

Threshold 1: Have a substantial adverse effect on a scenic vista (refer to Impact Statement AES-1);

Threshold 2: Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings or other locally recognized desirable aesthetic natural feature within a city-designated scenic highway (refer to Chapter 6, Other Mandatory CEQA Considerations, and the Initial Study contained in Appendix A. No impact would occur in this regard.);

Threshold 3: Substantially degrade the existing visual character or quality of the site and its surroundings (refer to Impact Statement AES-2); or

Threshold 4: Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area (refer to Impact Statement AES-3).

c. Project Design Features

As discussed in Chapter 2, Project Description, of this Draft EIR, the Specific Plan would allow for the future development of one of two scenarios, including Scenario 1, which would allow a maximum of 462,000 square feet of retail uses and 125,000 square feet of business park uses, or Scenario 2, which would allow a maximum of 275 residential units, 346,000 square feet of retail uses, and 125,000 square feet of business park uses. Under both scenarios, commercial buildings would be a maximum of four stories, with two stories anticipated under the Concept Plan. Planning Area 9, comprising approximately 29.5 acres, would be retained as permanent open space. Planning Areas 7 (approximately 5.4 acres) and 8 (approximately 0.9 acre) are located the west of Pepper Avenue adjacent to Planning Area 9. These Planning Areas are designated as a Commercial Overlay zone, which could be developed with community commercial uses, or retained as open space with the allowable density transferred to other community commercial areas within the Project Site. If retained as permanent open space, the total open space could increase to 35.8 acres. Similar to Planning Area 9, Planning Areas 7 and 8 consist primarily of Riversidean alluvial fan sage scrub (RAFSS) habitat. Jurisdictional drainage features are located just beyond Planning Area 9's west boundary. A pedestrian bridge could be constructed across the drainage leading from Planning Area 9 to Frisbie Park. If constructed, the bridge would span over the RAFSS habitat in Planning Area 9 and could be as short as approximately 300 feet long with the development of Planning Area 7 or more than 700 feet long if Planning Area 7 is retained as permanent open space. The bridge would also be designed to allow for the movement of wildlife through the RAFSS habitat.

If Scenario 2 were implemented (based on market conditions and the discretion of the private property owners) up to 275 multi-family residential units could be developed within Planning Area 3 in lieu of up to 116,000 square feet of retail uses. The multi-family residential units could be constructed within buildings up to a maximum of three stories and a density of 30 dwelling units per acre. Currently, no parks are proposed within the Specific Plan area. However, the Specific Plan is proposing that at a minimum, PA-9 (29.5 acres) remain as open space. PA 9 consists for the most part of RAFSS habitat and jurisdictional drainage features located on/near its eastern boundary.

(a) Specific Plan Design Guidelines

Chapter 4, Design Guidelines, of the Pepper Avenue Specific Plan sets forth planning, architectural, and landscaping design guidelines for future development. These guidelines would ensure quality retail center with consistent design elements. This Specific Plan distinguishes between the public and private realms. Design guidelines dictating requirements for the public realm typically impose greater regulation and specificity to ensure the resulting outcome is of high quality and attractive design. These outcomes are especially important in the public realm

due to the high level of visual exposure in public areas. Design guidelines for the private realm are intended to provide planners and designers the ability to implement creative expertise while still maintaining conformity with the public realm and the aesthetic vision of the overall Specific Plan. Where Specific Plan Design Guidelines provide similar regulations to the Municipal Code, the Specific Plan takes precedence.

(i) Gateway Statement

As discussed in the Design Guidelines, the location of the Project Site provides an opportunity to create a gateway statement into the City of Rialto. The Site is located upon Rialto's eastern city limit, immediately adjacent to the 210 Freeway. Pepper Avenue, a major arterial street, bisects the Project Site and would eventually be connected to the 210 Freeway via a proposed interchange. Focal features (e.g. art installations) are encouraged to be integrated into the Project site. These features may take the form of murals, sculptures, fountains, unique landscaping features or architectural elements that are specifically designed for the Project and would contribute to the high quality design and character of the Specific Plan.

Site-specific monuments that would be visible to passing vehicles would be incorporated at major entry points to the Project Site along Pepper Avenue and along the 210 Freeway. The signage would be of appropriate scale and design to provide a sense of entry that corresponds to the character of the Project, and attractive landscaping would be incorporated along Pepper Avenue to complement this design, which would further enhance the feeling of arrival to both the City of Rialto and the Specific Plan Area.

(ii) Main Street Concept

Community commercial uses in Planning Areas 1 and 2 would be oriented around a retail axis that would act as the Project's "main street" and retail center. Pedestrian-oriented design measures would be enacted within upon the main street district. Stores should be entered from "main street" and should have highly articulated and unique facades that generate visual interest. On street parking would add a "main street" aesthetic along with street-oriented shops. A community plaza space would be provided at the end of the main street, where a combination of high-quality architecture, landscaping elements, and public art should be implemented that visually anchor this retail space. The plaza could perform multiple functions, and may be utilized for community events, relaxation, dining, or other similar uses.

Well-furnished pedestrian walkways that include landscaped parkways and hardscaping elements should run the length of the main street and make the linear connections between various retail areas and the community plaza space. In addition to sidewalk parkways, the primary driveway in the main street area would also have a landscaped median that is aesthetically appealing; both sidewalk parkways and street medians should include trees, shrubs and groundcover that are consistent with the architectural vernacular of the Project.

(iii) Veneto Architectural Style

Under the Specific Plan's Design Guidelines, buildings would reflect the Veneto architectural style, in which four-sided architecture would be implemented where buildings are visible from the public realm.

This architectural style is influenced by the vision of the Project was selected to evoke a Mediterranean aesthetic reminiscent of the community of Venice and the Rialto Bridge. Elements of the Veneto architectural style include:

- Simple, box-like one, two- or three-story massing.
- Façades are generally symmetrical and may or may not include block accents on the front elevation.
- Main roof form should be a hip roof with secondary hip or shed roofs. Roof pitch should not exceed 4:12.
- Roof material should be clay-colored "s" shaped concrete roof tile.
- All publicly-visible windows should be tall and narrow, typically in groups of two (2) or three (3). Windows are encouraged to be recessed.
- Body colors include light to medium, earthy warm colors. Trim colors should be mid to dark brown, simulating stained wood or medium pre-cast colors. Accents should be dark, saturated, warm and cool colors.
- The primary hip roof should have decorative cornices underneath the eaves.
- The exterior material should be stucco with some pre-cast concrete trim or stacked stone on publically visible-elevations. The body may also be designed to mimic stone.

(iv) Architectural Design Guidelines

The Specific Plan's Architectural Design Guidelines address commercial and residential building design. With regard to commercial uses, the streetscape, building placement, massing and facade details would incorporate the following elements to facilitate the streetscape appearance by enhancing the dynamic interrelationships of light, depth and place.

- Scale and massing should be given careful consideration. Long, uninterrupted expanses of walls are discouraged.
- Interconnection and lapping of building forms and heights to break up long expanses of blank walls help relieve monotony and are desirable.
- Buildings in the Town Center area should have offset massing, wall planes, and breaks in building architecture that help break up the overall mass of a building.
- Buildings in excess of 15,000 square feet shall include a landscape screen to create articulation that improves the pedestrian experience.

When buildings of a single form and height are used, these buildings should be articulated with layered wall planes, banding, architectural details and/or materials.

- Large expanses of reflective, opaque, or highly-tinted glass are discouraged.
- Artwork and storefront windows are encouraged for retail buildings to help create a dynamic and interesting façade.
- Projections, overhangs, recesses, banding and architectural details should be used to provide shadow, articulation and scale to building elevations.
- On smaller "pad" buildings, all building sides should be treated architecturally.

Architectural projections, such as balconies, recessed windows, roof overhangs, awnings, and other features, would be used to emphasize features such as entries, major windows, or outdoor spaces. Under the architectural guidelines, roofs should appear to be composed of simple forms, vary in massing along the street scene and open spaces, and use pitches appropriate to the style of the building. Colors and finishes on buildings would be coordinated to provide continuity and shall include muted natural colors, earth tone colors, pastel colors, and natural stains.

At least one window treatment should be present on all exposed building elevations. Mechanical and functional equipment shall be screened. Other guidelines include:

- Large waste containers shall not be located between a building and Pepper Avenue and the main entryways.
- All roof-mounted equipment (excluding roof-mounted solar equipment) shall be screened by parapets, screen walls, fencing, equipment wells, structural enclosures or similar features from ground-level views from Pepper Avenue.
- On-site utilities should be installed underground where feasible and as permitted by the utility companies. Above-ground utilities shall be screened or incorporated into landscape whenever possible.

(v) Community Gathering Spaces

The Specific Plan provides for two principal community gathering spaces, including a welcoming plaza and a retail plaza. The welcoming plaza would be located at the west end of the potential pedestrian bridge where the Project connects with the adjacent neighborhoods and Frisbie Park to the west. The plaza would incorporate enhanced planting and hardscape features and would serve as one of the Project's primary pedestrian gateways.

The retail plaza would be located at the east end of the "main street" of the community commercial or retail use area. This plaza is intended to act as a visual anchor to the retail main street, and would be designed to reflect the Mediterranean "Veneto" aesthetic desired for the Project. In addition to providing visual interest, the retail plaza would bring the opportunity for outdoor retail uses, such as kiosks and outdoor dining. The retail plaza is expected to utilize design cues that emphasize the pedestrian scale.

(vi) Signage

Freeway-oriented signage within the Project Site would be specifically designed to be highly visible from 210 Freeway. These signs would be standalone, structures that would serve as gateway monuments that communicate tenant information to drivers on the freeway and immediately establish the Specific Plan's desired aesthetic through their architecture and design. Three such signs are planned for the Project, and would be spaced approximately evenly along the edge of the Specific Plan area that borders the 210 Freeway.

Monument signs within the Project Site would be smaller, stand-alone, two-sides structures less than ten feet in height. Monument signs would be required to be aesthetically consistent with other signs throughout the Project, and would communicate tenant information to those passing through the Site within the Pepper Avenue median and at the four driveways entries into the

Specific Plan area. Monument signs must utilize an architectural style that is consistent with the Project's desired aesthetic. All signs would be architecturally consistent with each other. Other signs, such as tenant signs, wayfinding and pageantry signs would be designed to adhere to the desired aesthetic of the Specific Plan. The plaza and potential pedestrian bridge crossing Planning Area 9 would also interface with the natural open space by providing the opportunity for interpretive signage.

Development Standards require that all direct light rays from all signs must be confined within the Project Site and shall not shine directly upon neighboring property. All exposed raceways are prohibited. Temporary lighting such as search or flood lights that are used on a permanent basis would be prohibited.

(vii) Landscaping Design Guidelines

Landscape would be consistent with the Veneto architectural style and physically and visually buffer pedestrian and retail areas from parking lots and vehicular rights-of-way. Three tiered levels of plantings at low, medium, and tall heights would allow the landscape to be relatable at a human scale as well as visually congruent with taller buildings and architectural features. Skyline palms, specific plant groupings, and a consistent plant palette are encouraged to act as unifying elements throughout the Project and to promote the desired Mediterranean aesthetic.

Landscape would also provide visual and physical buffers from traffic through planted medians and parkways within and along the streets. In the Town Center, traffic calming measures would be implemented with finger islands that break up parking lanes while bringing landscaping to the roadway edge, reducing the visual impact of cars on the pedestrian.

The following guidelines would be incorporated to achieve the intended design:

1. The Pepper Avenue streetscape shall be simple, strong and cohesive throughout. It shall extend the existing Pepper Avenue landscape design elements.
2. The landscape elements shall focus on providing high visual interest at critical entry points.
3. Landscape elements shall enhance and compliment the architectural design and overall character of the Project.

d. Analysis of Project Impacts

Impacts of the Specific Plan related to visual character and lighting would occur during both temporary construction activities and throughout ongoing operation of the Project. The following analysis of visual character and lighting discusses the construction (short-term) and operation (long-term) impacts of Project implementation.

(1) Views/Scenic Vistas

Threshold AES-1: A significant impact would occur if the Project would have a substantial adverse effect on a scenic vista.

Impact Statement AES-1: Because of distances between future development and public vantage points (setbacks created by permanent open space), ground elevation differences, and height restrictions on the Project's buildings, the Project would not substantially block views of the San Bernardino Mountains or San Gabriel Mountains from off-site public view locations. This impact is considered less than significant.

The Specific Plan would guide future development within the various on-site Planning Areas, allowing primarily retail and other commercial uses and potential residential development in Planning Area 3 (a 9.4-acre parcel in the east/central sector of the Project Site). Public vantage points and streets that have northerly views across the Project Site of the San Gabriel and San Bernardino Mountain Ranges include the east terminus of Walnut Avenue, Chestnut Avenue, Terrance Road, and Baseline Road. Direct north views across the Site from Walnut and Chestnut Avenues would be across the Project's proposed open space areas and would not be directly blocked by development. Northeasterly views of the San Bernardino Mountain Range from these vantage points would be across foreground open space, with the two-story commercial uses in the background. The Walnut and Chestnut Avenue vantage points (approximately 1,310 feet amsl) are approximately 25 feet higher in elevation than the proposed development area at approximately 1,285 feet amsl. Because of the permanent open space in Planning Area 9, the proposed development would be a minimum of more than 1,000 feet from the Walnut and Chestnut Avenue vantage points. The commercial buildings in the foreground would be limited to four stories (although two stories are contemplated in the Concept Plan) and the residential buildings in the background would be limited to three stories. Because of the deep setback, the drop in topography, and limited building heights, future development under the Project would not block north- and northeasterly-facing views of the San Bernardino Mountains from these vantage points.

Other north-facing views are farther to the south and include potential views from the Pepper Avenue corridor and views from east/west-bound Baseline Road to the south of the Project Site. Pepper Avenue runs in a north/south direction through the Project Site and would continue to provide a north-facing view corridor. As with the Walnut and Chestnut Avenue vantage points, Pepper Avenue just to the north of Winchester Drive/Terrace Drive currently provides views of the San Bernardino Mountains and, as with the Walnut and Chestnut Avenue vantage points, the developed area along Pepper Avenue is more than 20 feet higher than the Project Site and located more than 1,000 feet north of the vantage point. Because of the limited (up to four stories) commercial building height, views of the mountains across the commercial sector would not be blocked by the future development. Planning Area 3, which would be more than 1,500 feet from the Pepper Avenue vantage point would be approximately 25 feet lower in elevation and would cause less obstruction because its distance and location in the background of the commercial uses. As such, the Project would not block mountain views from the portion of Pepper Avenue near existing residential neighborhoods.

North-facing views of open space and the San Gabriel and San Bernardino Mountain Ranges also occur along some segments of Baseline Road. However, the Project Site is generally obscured from this public road and Project development would not cause any new significant view obstruction.

Frisbie Park has direct northerly views of the mountains and, thus would not be impacted by the Specific Plan.

The Project Site is located with the south-facing line of sight toward the La Loma Hills from the 210 Freeway and southeasterly-facing views from Eucalyptus Avenue and Frisbie Park. However, because the La Loma Hills are approximately twice the distance of the San Gabriel and San Bernardino Mountain Ranges from the freeway, Eucalyptus Avenue, and the park and do not have distinctive height, they are minimally visible. As such, any views of the hills from these locales are not considered valued views. Therefore, because of the topographical differences and distances between the future development and public vantage points, and height restrictions on the Project's commercial and residential buildings, the Project would not have a substantial adverse effect on a scenic vista. This impact is considered less than significant.

(2) Aesthetics/Visual Character

Threshold AES-2: A significant impact would occur if the Project would substantially degrade the existing visual character or quality of the site and its surroundings.

Impact Statement AES-2: The Design Guidelines of the Specific Plan would guide development and ensure aesthetically pleasing building design, streetscape, landscape, building orientation, pedestrian amenities and other features that would positively contribute to the visual character of the area. Thus, the Specific Plan would not substantially degrade the existing visual character or quality of the site and its surroundings. This impact is considered less than significant.

(a) Construction Impacts

Construction of future commercial and potential residential uses would require Project Site clearing and grading activities within each affected planning area (excepting permanent open space in PA 9, which is part of RAFSS habitat, or, potentially, PA 7 and PA 8, if maintained as open space. Grading would be followed by trenching/utility installation and street and building construction. Pepper Avenue is currently in place. Construction activities would occur intermittently throughout implementation of the Specific Plan, with market forces determining the timing and location of each development Project. As such, construction activities at any one location would be temporary and would result in impacts only for the duration of construction within that particular Planning Area. Nonetheless, given the undeveloped nature of the Project Site, short-term adverse visual character impacts could occur during temporary construction activities as equipment, materials, personnel, temporary structures (contractor trailers), worker vehicles, and other features would be located on the Project Site. While Site clearing and grading, as well as the placement of construction equipment, vehicles, materials, and other visually unappealing features on the Project Site, could detract from the visual character of the Project Site, this impact is not considered significant because of the temporary character of construction activities. In addition, construction fencing with visual screening would be installed around the perimeter of all construction areas, thereby minimizing the potential for substantial adverse aesthetic/visual character impacts during construction activities.

(b) Operation Impacts

The majority of the Project Site has historically been used for farming and, with the exception of the WVWD facility in the southeast sector of the Site, few structures currently exist on-site. The westerly sector of the Project Site contains RAFSS habitat that has been disturbed by off-road vehicle activity, as viewed from off-site areas. As such, the Site generally lacks a high level of visual quality or other valued aesthetic features such as outcroppings, historic buildings, landscaping or other visual buffers. Implementation of the Specific Plan would result in the long-term, incremental development of urban uses within the various Planning Areas, which would fundamentally change the visual character of the Project Site. However, future development pursuant to the Specific Plan would be consistent with applicable policies of the General Plan Community Design Component that encourage improvements in the visual character of the City's public and private realms (please refer to the discussion presented below in Table 4.A-1, Consistency of the Specific Plan with the Community Design Policies of the General Plan).

With the conversion of vacant land to urban uses, development of proposed uses in accordance with the Specific Plan's Design Guidelines would avoid degradation of visual quality and ensure visually cohesive and attractive urban design patterns within the various Planning Areas. The Specific Plan's Development Standards and Design Guidelines regulate allowable uses, building heights, clustering, building design, wall/fence features, landscaping, streetscape, signage, and lighting throughout the Specific Plan area, which would reduce the potential for incompatible or inconsistent development patterns or urban designs. Because development of future uses would occur in accordance with the extensive guidelines contained in the Specific Plan, the change from existing open space to urban uses would not degrade the Site's visual quality relative to the existing vacant, undeveloped condition of the majority of the Project Site. As such, the Specific Plan would result in less than significant visual character impact during operation.

(3) Light and Glare

Threshold AES-3: A significant impact would occur if the Project would create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Impact Statement AES-3: The Specific Plan would require shielding of street lights and other exterior lighting, signage requirements to reduce glare. Implementation of the Project would not create substantial light or glare that would adversely affect day or nighttime views in the area. This impact is considered less than significant.

(a) Construction

Lighting needed during Project construction could generate visible light in the vicinity of the Project Site including residential uses to the west and south. However, construction activities would occur primarily during daylight hours and any construction-related illumination would be used for safety and security purposes only, in compliance with Rialto Municipal Code light intensity requirements (construction lighting is not addressed in the Specific Plan). Construction lighting also would last only as long as needed in the short-term

construction process. Thus, with the implementation of existing Municipal Code regulations, artificial light associated with construction activities would not significantly impact residential uses, substantially alter the character of off-site areas surrounding the construction area, or interfere with the performance of an off-site activity. Construction activities are not anticipated to result in large expanses of flat, shiny surfaces that would reflect sunlight or cause other natural glare. Therefore, the Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. Impacts with respect to construction lighting would be less than significant.

(b) Operation

(i) Artificial Light

Implementation of the Specific Plan over the long-term would incrementally increase the relatively low levels of ambient light under the existing conditions. The recently constructed Pepper Avenue through the Project Site currently provides street lights. Light-sensitive land uses in the area include residential uses to the west and south and particularly along Eucalyptus Avenue, Walnut Avenue, and Chestnut Avenue. However, these areas would be separated from future development and light sources by the approximately 29.5-acre Planning Area 9 permanent open space.

New light sources within the Specific Plan area would include signage, visible from the light from windows of residential buildings and retail uses, outdoor architectural lighting, parking lot lighting, and sign-related lighting, as well as light from street lights, vehicles traveling along on-site and adjacent roadways, and security lighting. Illuminated signs would include signs visible from the 210 Freeway and commercial building signs. Such lighting has the potential to create a "glow" effect within and around the Project area, including adjacent residential neighborhoods, and result in an overall increase ambient light in the area. This increase in ambient lighting, however, is not expected to interfere with activities in on-site or adjacent residential neighborhoods, as they already would be subject to similar lighting conditions (street lights, neighborhood lights). The Specific Plan's Development Standards require that all direct light rays from all signs must be confined within the Project Site and not shine directly upon neighboring property. Temporary lighting such as search or flood lights that are used on a permanent basis would be prohibited. The effect of the incremental increase in ambient light sources associated with the Specific Plan's residential uses would be negligible in the context of the overall development pattern in the area, which includes freeway lights and evening traffic, lighting of the Frisbie Park ballfields, and indoor and outdoor lighting from residential neighborhoods. Landscaping along the periphery of the proposed developed areas would also limit light-related impacts to adjacent uses.

The Specific Plan's exterior lighting would also include lighting provided at vehicle entry points and areas of circulation; points of entry into buildings; along the exterior façades of buildings; and other outdoor areas (e.g., paseos and common open space areas) for both architectural highlighting and security purposes. Lighting for security purposes would occur from dusk to dawn to ensure the safety of residents, employees, and visitors. Lighting would primarily consist of a mix of standard incandescent light fixtures, as well as various types of efficient/low energy

fixtures. Lighting would be designed (shielded) and strategically placed to minimize glare and light spill onto off-site residential neighborhoods. Specifically, any pole-mounted light fixtures located on-site or within the adjacent public rights-of-way would be shielded and directed toward the areas to be lit and away from adjacent sensitive uses. Landscaping along streets and building edges would also reduce light spillage and ambient night glow.

Based on the above, with adherence to the Specific Plan lighting guidelines and other applicable Rialto Municipal Code regulations (i.e., pertinent to construction lighting), lighting associated with the Project would not substantially alter the character of the off-site areas surrounding the Project Site and would not interfere with the performance of an off-site activity. Impacts attributable to Project-induced artificial lighting would be less than significant.

(ii) Glare

Daytime glare can result from sunlight reflecting from a shiny surface that would interfere with the performance of an off-site activity, such as the operation of a motor vehicle. Reflective surfaces can be associated with window glass and polished surfaces, such as metallic or glass curtain walls and trim. Under the Specific Plan's Architectural Guidelines, buildings of a single form and height are used, these buildings should be articulated with layered wall planes, banding, architectural details and/or materials. The Specific Plan would prohibit large expanses of reflective or highly-tinted glass. In addition, building walls would articulated to reduce highly reflective surfaces, or use of metal and reflective glass.

Existing glare generation within the Project vicinity is limited because of the residential character of the area. However, passing vehicles on the 210 Freeway have the potential to generate short-term glare as viewed from the south. The east/west- bound 210 Freeway and north-bound streets in the area are considered glare sensitive because the light source (sunlight) would be behind the driver and reflect off shiny objects in the drivers view field across the Project Site. Because the Specific Plan's Development Standards and Design Guidelines include provisions for architectural design (including window design/placement), types of building materials, landscape screening, and discouragement of large expanses of reflective glass or metal building surfaces, glare impacts within the view field of the freeway or northbound streets in the area would be minimal or absent. Because of the proposed architectural character of future uses and associated design requirements, glare impacts are anticipated to be less than significant.

(4) Policy and Regulatory Compliance

(a) City of Rialto General Plan

The City of Rialto General Plan includes various goals and policies within the Community Design component that relate to aesthetics, visual quality, and scenic resources. An analysis of the Specific Plan's consistency with the applicable goals and policies contained in the General Plan is presented in **Table 4.A-1**, *General Plan Consistency Analysis*, below. As discussed in Table 4.A-1, the Specific Plan would be consistent with the applicable goals and policies of the General Plan Community Design component and, thus, represent the City's aesthetic values. As such, impacts with respect to the General Plan would be less than significant.

TABLE 4.A-1
CONSISTENCY OF THE PEPPER AVENUE SPECIFIC PLAN WITH COMMUNITY DESIGN POLICIES OF THE GENERAL PLAN

Policies	Evaluation of Consistency
Goal 2-10: Create distinctive gateways at all entry points into Rialto and for individual districts or neighborhoods.2- Policy 2-10.1: Continue the use of monument signs at focal points within the community and at major and minor gateways. Establish unified entry treatments at major entries into the City. Policy 2-10.2: Design and implement themed landscape treatments near freeway off- and on-ramps to announce entry into Rialto. Policy 2-10.3: Encourage new and established neighborhoods to provide ground signs and landscaping at a major street entrance to reinforce their identity.	**Consistent.** The Project would be the gateway to the northeastern area of the City and would incorporate freeway-oriented signage, where appropriate, and monument signage that would contribute to the overall sense of place. The signage would be designed to be consistent with the Project's high quality architecture. Landscaping within the Pepper Avenue median and parkways is planned to be implemented as part of the Project. This landscape theme is consistent with the existing landscape already installed in Pepper Avenue, as identified in Chapter 4, Design Guidelines. This landscaping would be attractively designed and announce the entry for both the Project and the City. Medians and parkways on the "main street" within the Project would reinforce the commercial identity by utilizing special landscaping treatments. Special signage would be incorporated into the Project and tailored in design to effectively communicate directional information throughout the Site and establish retail and/or residential character.
Goal 2-11: Design streetscapes in Rialto to support and enhance the City's image as a desirable place to live, work, shop, and dine. Policy 2-11.1: Require the screening of commercial or industrial parking areas, storage yards, stockpiles, and other collections of equipment from the public right-of-way. Policy 2-11.2: Provide and maintain street trees and parkway landscaping within the public right-of-way for developed properties within Rialto. Require private development to do the same as per City design regulations. Policy 2-11.4: Incorporate street trees and other landscape treatments along corridors to provide sufficient shade canopy and promote pedestrian comfort. Policy 2-11.5: Require that projects with perimeter walls (including gated residential communities) provide an interesting streetscape, with pedestrian access to major travel ways.	**Consistent.** On the east side of Pepper Avenue, the Project would screen loading and service areas from public view through the building orientation, design, walls and/or landscape. On the west side of Pepper Avenue, walls and landscape screen would detract from the overall aesthetic of the Site and be an inappropriate buffer from the adjacent natural open space. However, service areas would be screened by using unique architectural and landscape treatments, as indicated in Chapter 4, Design Guidelines. Also, these buildings require architecture and appropriate landscape treatments on all exposed elevations, similar to the level of design on the front elevation. The Design Guidelines include sample, innovative treatments to reduce the visual impact of service areas. Medians would be provided, where feasible, within the public right-of-way of the Project Site. Trees, shrubs and ornamental landscaping would be planted within medians and Planning parkways throughout the public realm. Ornamental and functional landscaping within the private realms of the Project would be consistent with that of the public realm, such that landscaping in both areas demonstrates the desired Mediterranean, "Veneto" aesthetic and contributes to the overall sense of place of the Project. Pedestrian comfort would be taken into account when designing landscaping along sidewalks and pedestrian paths. Where feasible, canopy trees would be provided to shade pedestrian walkways.
Goal 2-12: Design new streets to be pedestrian friendly. Policy 2-12.1: Require the use of attractive street furniture (benches, trash receptacles, planters, bicycle racks) in the Downtown area, along Foothill Boulevard, and other highly visible areas to communicate the City's identity and pride. Policy 2-12.2: Use textured paving or similar design features to define pedestrian crossings, particularly near pedestrian activity areas such as Downtown. Policy 2-12.3: Install curb extensions (i.e., bulb out or similar enhancements) at pedestrian crossings to shorten the crossing distance required, wherever feasible. Additional pedestrian protections, including bollards and	**Consistent.** The Project would emphasize a meaningful pedestrian experience that creates an attractive and safe environment suitable and desirable for pedestrian use. As identified in Chapter 4, Design Guidelines, the design and use of street furniture, such as benches, planters, bike racks, pedestrian level signage, lighting fixtures, trash receptacles, etc., would bolster the Project's character and create an approachable, enjoyable environment. In areas with high levels of expected pedestrian activity, textured, stamped, or stained paving would be encouraged to generate visual interest at the pedestrian level. Pedestrian crossings for major streets would be delineated using one of the aforementioned paving techniques, and

Policies	Evaluation of Consistency
defensible space landscape treatments, should be utilized as well. Policy 2-12.4: Enhance pedestrian walkways directly under building canopies by one or more of the following techniques: interlocking or textured paving, turf block walls, theme plantings, trees projecting through canopies, bollards and kiosks, pavilions or gazebos, and trellises and arbors planted with flowering vines. Policy 2-12.5: Maximize potential pedestrian connections through the use of highly visible gateways, walkways, and directional signs and the installation of traffic-calming devices where appropriate. Policy 2-12.6: Require landscape screens in new commercial developments larger than 15,000 square feet directly in front of the stores rather than leaving the façade barren. The intent of the landscape screen is to improve the scale by visually lowering the building height and mass without impeding access or identity of the buildings function. Policy 2-12.7: Shade bus shelters and other outdoor use areas from the sun. Commercial projects along major corridors in Rialto shall incorporate at least one bus shelter, taxi stop, bicycle rack, and/or similar transportation or pedestrian features. The design of these features shall be consistent with the identity, feel, and theme of that corridor.	would reduce the crossing distance by using curb extensions where feasible or appropriate. Bollards, landscaping buffers, and other techniques that define pedestrian spaces can also be utilized as appropriate. Highly visible gateways would communicate the pedestrian nature of the walkway and denote the beginning and end of major pedestrian paths. Landscaping, signage, and traffic calming design features installed at these pedestrian activity areas would further encourage pedestrian usage. As described in Chapter 4, Design Guidelines, landscape screening would be implemented upon commercial buildings that exceed 15,000 square feet in size in order to reduce the negative visual impacts of large, uninterrupted facades upon the pedestrian and to create articulation that improves the pedestrian experience. Pepper Avenue north of Baseline Road does not currently have any public transit services. With the recent opening of the Pepper Avenue extension, bus services could be extended to the Project Site. Chapter 5, Development Standards requires that all major developments work with Omnitrans in determining if bus services shall service the Project Site. Should services be provided to the Site, the developer(s) would install a bus shelter consistent with the Mediterranean “Veneto” architectural theme of the Project. Bicycles racks are also to be provided as part of the Project.
Goal 2-13: Achieve quality aesthetic design of all signage in the City of Rialto. Policy 2-13.2: Require consistent design quality and themes for directional signage along public streets. Policy 2-13.3: Require that all ground signs incorporate landscape treatment to reduce visual height and impact from the street.	**Consistent.** The Specific Plan entails future development projects within the Specific Plan boundaries. Developers would be required to construct on-site traffic system improvements as well as paying applicable fair-share contributions to local and regional off-site improvements in order to mitigate Project-related traffic impacts. With implementation of applicable improvements, the Specific Plan would not hinder the preservation or sustainability of the regional transportation system.
Goal 2-14: Protect scenic vistas and scenic resources. Policy 2-14.1: Protect views of the San Gabriel and San Bernardino Mountains by ensuring that building heights are consistent with the scale of surrounding, existing development. Policy 2-14.2: Protect views of the La Loma Hills, Jurupa Hills, Box Spring Mountains, Moreno Valley, and Riverside by ensuring that building heights are consistent with the scale of surrounding, existing development.	**Consistent.** Commercial buildings would be restricted to a maximum height of four stories, with two stories anticipated under the Concept Plan, and residential buildings would be restricted to a height of three stories. With building height restrictions, scenic vistas of the San Bernardino and San Gabriel Mountain Ranges from public vantage points and streets to the south and views of the La Loma Hills from the 210 Freeway would be substantially protected.
Goal 2-15: Establish a public art program that engages the public and enriches the pedestrian experience. Policy 2-15.1: Encourage the incorporation of public art into large-scale development projects. Policy 2-15.3: Encourage the creation of art pieces that represent the agricultural history of the community, family-first values, and vision for the future.	**Consistent.** As described in Chapter 4, Design Guidelines, public art is encouraged be incorporated into high visibility areas of the Project. Specifically, public art should be considered for implementation along the “main street”, the community commercial plaza, and the welcome plaza adjacent to the potential pedestrian bridge. This art may take the form of murals, sculptures, fountains, unique landscaping features or architectural elements that are specifically designed for the Project and contribute to the high quality design and character of the Specific Plan and are encouraged to represent the agricultural history of the City and the site, or the community, family-first or family-first values.

Policies	Evaluation of Consistency
Goal 2-16: Improve the architectural and design quality of development in Rialto. Policy 2-16.1: Require new development and construction to exhibit a high level of quality architectural design to emphasize community uniqueness, individuality, and historical references. Policy 2-16.2: Require architectural identity for individual commercial corridors, while also encouraging a variety of architectural features to create visual interest and pedestrian scale. Policy 2-16.3: Discourage architectural monotony. Policy 2-16.4: Discourage the design of boxy structures; emphasize articulation of the front façade and the horizontal plane with multi-story structures. Policy 2-16.5: Require developers to vary building and parking setbacks along the streetscape to create visual interest. Policy 2-16.6: Require architectural treatments on all façades facing rights-of-way, public streets, and alleys, including windows, doors, architectural details, and landscape treatment.	**Consistent.** Chapter 4, Design Guidelines include provisions that would ensure a high-level of quality architectural design that is consistent throughout the Project and provides a unique retail (and possibly residential) experience within the City of Rialto. Where appropriate, historical references would be made through the incorporation of design themes and public art. Variety in scale, massing, setbacks and design of commercial areas would reinforce the identity of the Project, while allowing for unique and interesting architectural features throughout the planning areas. Highly articulated façades and rooflines would discourage architectural monotony
Goal 2-17: Provide high-quality and environmentally sustainable landscaping. Policy 2-17.1: Require the planting of street trees along public streets and inclusion of trees and landscaping for private developments to improve air shed, minimize urban heat island effect, and lessen impacts of high winds. Policy 2-17.2: Require all new development to incorporate tree plantings dense enough to shade and beautify residential and commercial areas. Policy 2-17.3: Require the use of drought-tolerant, native landscaping and smart irrigation systems for new development to lower overall water usage.	**Consistent.** The Project would comply with these policies by requiring medians and parkways in the right-of-way and other public realms to be planted with trees and thoroughly landscaped with ornamental drought tolerant landscaping. Trees planted within community commercial and multifamily residential areas would be dense enough to provide shade and would minimize urban heat island effect, especially within parking lots and open spaces. The proposed landscape plan would implement a design that is intended to use lower overall water usage, as compared to developments consisting of turf.
Goal 2-18: Protect Rialto's small-town character. Policy 2-18.1: Require all new development and renovations within residential neighborhoods to be consistent with the existing scale, massing, and landscaping of that neighborhood. Policy 2-18.2: Protect, to the extent feasible, the natural character of the areas bordering or in close proximity to the Santa Ana River and Lytle Creek	**Consistent**. The Specific Plan design considers the existing scale, massing, landscaping and typology of the existing development near the Project Site. The Site is currently undeveloped, and is close to some existing single-family homes, across a natural wash to the south and west of the Project Site. This neighborhood would be buffered by the large natural open space that encompasses the natural drainage features in PA 9. Furthermore, height restrictions for the Project are similar to those in other areas of the City. Given the buffer and the height limitations, there would be no inconsistencies in scale, massing, and landscape between the Project Site and the nearby single-family residential uses. The Project preserves a large open space wash that would continue to function as a natural habitat area and drainage feature that flows into Lytle Creek.

Policies	Evaluation of Consistency
Goal 2-19: Encourage neighborhood preservation, stabilization, and property maintenance. Policy 2-19.1: Require that new construction, additions, renovations, and infill developments be sensitive to neighborhood context and building form and scale. Policy 2-19.2: Encourage property maintenance by requiring new development to submit precise plans of design to maintain landscape areas that incorporate property maintenance standards from the City's property maintenance ordinance. Policy 2-19.5: Integrate residential developments with their built surroundings, and encourage a strong relationship between dwelling and the street.	**Consistent.** Due to the location of the multi-family residential overlay on the Project Site, new residential development within the Specific Plan would respect the scale and massing of these nearby neighborhoods. The multi-family portion of the Project Site is located on a lower grade than the nearby single-family residential. With the multi-family portion limited to three stories in height and the distance of the multi-family housing from the existing single-family homes (1,500 feet), the multi-family housing would not be incompatible with the nearby single-family homes. As mentioned in Chapter 5, Development Standards, plans for future development would include the specific design and maintenance standards identified in the City's Landscaping Maintenance specifications. Chapter 4, Design Guidelines include design guidelines that would ensure development within the multi-family overlay zone would integrate into surrounding development, with units having a strong interrelationship with the street and open spaces PA3. The multi-family development within the overlay zone would be residential in nature, but would be designed so that it is not a "residential island," isolated in the midst of community commercial uses. The multi-family residences would be physically separate from community commercial uses, but visually integrated consists of strong pedestrian connections.
Goal 2-20: Require high-quality multi-unit design, landscaping, and architecture. Policy 2-20.1: Require multi-unit buildings design to be visually and architecturally pleasing by varying the height, color, setback, materials, texture, landscaping, trim and roof shape. Policy 2-20.2: Do not allow box-like forms with large, unvaried roofs by using a variety of building forms and roof shapes by creating clusters of units, variations in height, setback, and roof shape. Policy 2-20.3: Require use of porches, stairs, railings, fascia boards, and trim to enhance multi-unit buildings' character. Policy 2-20.4: Provide for multi-unit buildings to relate to the street and be located to reinforce street frontages. Policy 2-20.5: Emphasize private, ground-level entries to individual units so that primary building entries are prominent and visible. Policy 2-20.6: Require pedestrian accessibility to adjacent uses with paseos, gates, pedestrian walkways, crossings, and sidewalks. Policy 2-20.7: Require parking lots to be located at the rear or side of a site to allow a majority of dwelling units to front on the street. Policy 2-20.8: Encourage that each unit have some form of useful private open space, such as a patio, porch, deck, balcony, yard, or shared entry porches or balconies.	**Consistent**. As identified in Chapter 4, Design Guidelines, multi-unit residential buildings would be architecturally pleasing by incorporating varying height, color, setback, materials, texture, landscaping, trim and roofs within the multi-family overlay zone. These design features would create visual interest and contribute to the Mediterranean, "Veneto" character of the Project. Functional aspects of the unit designs, such as porches, stairs, and railing shall be designed to be aesthetically appealing, consistent with the desired community aesthetic while performing their practical purpose as a functional architectural element. As described in the design guidelines, units should be clustered in design and would incorporate ground level entries into designs that face the street in order to promote the relationship of the residences with the public realm. Parking lots would be located in the rears in order to reduce the visual impact of parked cars upon the public realm, and promote residential character of the multifamily residential zone by having units fronting onto the streets/drives. As identified in Chapter 5, Development Standards, each individual multi-family unit would be required to have access to some form of personal open space, such as a patio or balcony. Residential projects within the multi-family overlay would have a series of internal sidewalks, paseos and crossings for a pedestrian-friendly environment and to connect the dwellings to the community commercial uses and facilitate access between the two uses.

Policies	Evaluation of Consistency
Goal 2-21: Ensure high-quality planned developments in Rialto. Policy 2-21.1: Require the provision of landscape buffers, walls, additional setbacks, and landscaped Planning Parking lots as buffers between commercial and/or industrial uses with residential land uses. Policy 2-21.2: Require that the layout of units and/or buildings be staggered to maximize visual interest and individual identity. Policy 2-21.3: Discourage rectangular building footprints that lack visual interest or articulation along street frontages, and encourage the arrangement of structures on the site to allow for adequate screening of parking and loading areas as well as alleys on all industrial and commercial sites. Policy 2-21.4: Encourage creative site planning, making use of patio homes, zero lot line units, planned unit "cluster" development, attached townhouse products, and auto courts. Policy 2-21.5: Encourage the clustering of residential units which provide semi-private common areas, maximize views, and provide passive open space and recreation uses within multi-unit developments. Policy 2-21.6: Encourage developments to incorporate meandering greenbelts into subdivision projects, particularly along trails, collector streets, secondary streets, and major highways, protected environmental areas, or other special features. Bicycle and pedestrian trails should be connected with similar features in neighboring projects so that upon completion newer neighborhoods would be linked at the pedestrian level. Policy 2-21.7: Require parkways to be placed on the outside of the public sidewalk immediately adjoining the curb to provide shade for pedestrians, and provide a canopy of trees to be either uniformly spaced or informally grouped. Policy 2-21.8: Require that new residential subdivisions adjacent to secondary or major highways be oriented inward and provided with buffers to reduce exposure to traffic and noise.	**Consistent.** The Design Guidelines section of this Specific Plan identifies that the multi-family residential should be designed to interact with the adjacent commercial uses. However, in the event that the residential is adjacent to the side or rear portions of the commercial, the residential would have walls and landscape to function as a barrier to reduce impacts associated with an undesirable commercial edge. In accordance with Chapter 4, Design Guidelines, multi-family units would be staggered and well-designed in order to generate visual interest and contribute to the Mediterranean, "Veneto" character of the overall Project. Articulated walls and footprints would discourage monotony in architecture, and a well-designed and creative site plan would promote the livability, walkability, aesthetics, and inviting open spaces. Sidewalks and paseos within each developed planning area would make internal connections to various points of interest within that planning area, and would also connect to surrounding uses. Public parkways would be placed on the outside of the sidewalk, separating the curb and the pedestrian walkway. Trees would be planted in these landscaped parkways in order to shade sidewalks and encourage walkability. Residential units would only permitted to be located within PA3, which is separated from both Pepper Avenue and the 210 Freeway by community commercial uses.
Goal 2-22: Promote commercial and/or industrial development that is well designed, people-oriented, environmentally sustainable, sensitive to the needs of the visitor or resident, and functionally efficient for its purpose. Policy 2-22.1: Require that developments incorporate varied planes and textures and variety in window and door treatments on building façades. Policy 2-22.2: Encourage architecture which disaggregates massive buildings into smaller parts with greater human scale. Policy 2-22.3: Require that landscape plantings be incorporated into commercial and industrial projects to define and emphasize entrances, inclusive of those areas along the front of a building facing a parking lot. Policy 2-22.4: Require all major commercial developments to incorporate theme elements to create a distinct identity, foster individuality, and provide gathering opportunities. Policy 2-22.5: Require developments to provide pedestrian	**Consistent.** As identified in Chapter 4, Design Guidelines, commercial buildings within the Specific Plan are encouraged to be arranged to minimize the appearance of long, unbroken, rectangular axes, where feasible, without compromising the efficiency of the site design and layout. Landscaping would be used to visually "break up" long, straight axes. For smaller buildings, treatments may include clustering them together around a small plaza, green space, or other focal point. To the extent feasible, large commercial buildings would be visually broken up into smaller components by changes in color, texture, rooflines, window and door spacing, or massing. Landscaping and vertical trees would also help to break up building massing, and would also be used to highlight building entries and architectural features. Commercial building facades would incorporate varied planes, colors, and textures to promote interest. Architectural detailing would take place upon any building façade that is visible from a public street, 210 Freeway or faces the unnamed was to the west and south of the Project Site.

Policies	Evaluation of Consistency
and vehicle connections and pathways between parking lots at the rear and front of buildings. Policy 2-22.6: Require delivery areas to be separated from pedestrian areas. Policy 2-22.7: Require outdoor storage areas, where permitted, to be screened from public view. Policy 2-22.8: Insist that full architectural treatments and details be provided on all facades visible to the street of development projects.	Community commercial development would be encouraged to incorporate theme elements intended to distinguish them from other developments, foster individuality, and promote gathering opportunities. Such elements may include, but are not limited to, outdoor cafes, gateways, kiosks, flag courts, trellises and arbors, bell towers, theme towers, galleries, patios and plazas, water elements, booths, outdoor markets, colonnades, and arcades. Parking lots would not be isolated from the fronts of buildings. Commercial developments would provide either mid-building pedestrian access or fully treated rear entrances. Service and delivery areas would be separated from pedestrian areas such that they would not interfere with pedestrian traffic and would have minimal aesthetic impact on pedestrian nodes. Although not initially proposed, any accessory outdoor storage areas would be reviewed as part of the Project's design and would be appropriately screened from public view.
Goal 2-23: Minimize the visual impact of parking lots. Policy 2-23.1: Require mature trees and landscaping in off-street parking areas to make them more inviting and aesthetically appealing, and to provide sufficient shading to reduce heat. Policy 2-23.2: Encourage the inclusion of textured parking along pedestrian walkways and under building canopies. Policy 2-23.3: Require use of drainage improvements designed, with native vegetation where possible, to retain or detain water runoff and minimize pollutants into drainage system.	**Consistent.** Chapter 18.58 of the City of Rialto Zoning Code requires that a minimum of 10 percent of the parking area shall be landscaped. Design guidelines are included in this Specific Plan that encourage parking lots to include a combination of landscaping belts, planters, and design features that reduce the massive and unbroken appearance of parking surfaces. Where appropriate and feasible, parking lot drainage design would utilize landscaping planters as a means to reduce runoff. Native vegetation would be planted where possible to reduce the amount of water required for irrigation.
Goal 2-24: Take advantage of opportunities to increase and enhance open spaces throughout Rialto. Policy 2-24.1: Identify and explore opportunities for acquisition of land in the Lytle Creek floodplain and fault-impacted areas for use as open space, parkland, or recreational areas.	**Consistent.** The Specific Plan area includes a significant portion of the site that includes a fault hazard. This area of the Project also consists of protected habitat and is identified as natural open space. The potential pedestrian bridge connecting Frisbie Park and the community commercial uses within the Project would provide species information and offer views of the habitat to visitors of the Project site.
Goal 2-26: Maximize open spaces in urban areas. Policy 2-26.1: Require that private open space be integrated into new development by providing green spaces and landscaped plazas between buildings. Policy 2-26.2: Enhance street corridors by incorporating small green areas, extensive landscaping, and street trees. Policy 2-26.3: Explore opportunities to create pocket parks within urbanized areas for public and/or private use.	**Consistent.** As indicated in Chapter 4, Design Guidelines, the Project design includes plazas and resting areas within the "main street" area and also a welcoming plaza at the terminus of the potential pedestrian bridge into the Project. The main street would also feature extensive landscape treatment on both sides of the traveler for an aesthetically pleasing pedestrian experience. The Pepper Avenue right-of-way would be enhanced by incorporating street trees, small green areas and extensive landscaping into medians and parkways Where appropriate, additional private green spaces would be incorporated into the site design. Opportunities for the implementation of pocket parks within the multi-family overlay zone would be reviewed at the design-level. In any case, any multi-family residential would be required to provide a minimum of 400 square feet of common open space, as indicated in Chapter 5, Development Standards.

Policies	Evaluation of Consistency
Goal 2-27: Provide a variety of park facilities that meet the diverse needs and interest of the community. Policy 2-27.1: Establish a Master Plan for Parks and Recreation that achieves a ratio of 3.0 acres per 1,000 residents, evenly distributes park facilities throughout the community, and contains strategies for funding facilities and maintenance.	**Consistent.** Chapter 5, Development Standards, requires that each multi-family dwelling unit shall provide a minimum of 400 square feet per unit and would be evaluated at the design-level review. Should the 400 square feet per unit be less than this policy, the Project would provide additional open space or pay park in-lieu fees to meet this requirement.

SOURCE: Pepper Avenue Specific Plan, Appendix A, 2016.

(b) City of Rialto Municipal Code

The Specific Plan would supersede the design guidelines for commercial and residential development includes in the Municipal Code. However, the Specific Plan would be consistent with the intent of the Municipal Code in reflecting the City's standard for aesthetic and high quality development. The Specific Plan would be consistent with the Code's special landscape or architectural treatment to enhance focal points and public site entrances. As described in Table 4.A-1, the Specific Plan would meet the City's goals that require residential dwellings to be arranged in a manner that creates a harmonious, varied appearance of building heights and setbacks (similar to Code Section 18.61.040). Design requirements of the Specific Plan would be consistent with Code Section 18.61.050, which requires that commercial buildings locate loading areas and circulation driveways, trash and storage areas, and roof-mounted equipment be as far as feasible and practical from adjacent residences and orientation of buildings along streets used by the public that allow buildings to define the street edge. The Specific Plan would be consistent with building design requirements under Section 18.61.060 that require desirable colors on building exteriors, including muted natural colors, earth tone colors, pastel colors, and natural stains. The Specific Plan would be consistent with residential building design regulations under Section 18.61.070, that requires building design to respect the predominant characteristics of neighborhood development, such as height, massing, setbacks, materials and architectural style. Under the Specific Plan, facades of long buildings would be segmented and well-defined, which is consistent with Section 18.61.080. Similar to the Municipal Code, large blank, flat walls, flat roofs, square "box-like" buildings, highly reflective surfaces such as metal would not be permitted. The Specific Plan would be consistent with Section 18.61.100, which requires that materials and colors on building exteriors of all elevations of a building shall be coordinated to provide a total continuity of design and with Section 18.61.140, which requires lighting to be designed as an integral part of the overall site and building design. Because the Specific Plan would be substantially consistent with applicable aesthetic regulations of the Municipal Code, impacts related to Code consistency would be less than significant.

(b) Rialto Zoning Ordinance

Title 18 of the City of Rialto Municipal Code establishes land use requirements for all new development in the City. All new development would be reviewed by the City's Department of Building and Safety to ensure compliance with all aspects of the Rialto Municipal Code, including Title 18. In addition to compliance with all applicable aspects of Title18, the Specific Plan must meet the requirements of Sec. 18.78, which provides procedures for the adoption of

specific plans. The Specific Plan's Design Guidelines (Chapter 4.0) and Development Standards (Chapter 5.0) would meet the requirements of Title 18 for the systematic implementation of the General Plan regarding the location of uses together with regulations establishing height, bulk, and setback limits; the location and extent of existing or proposed streets, standards for building density, permissible types of construction and provisions for services.

Overall, future development associated with the Project would be subject to review through the development application process and would be analyzed by the City to ensure that the development is consistent with the development regulations and requirements. It should be noted that where the Specific Plan is silent on a development standard or design requirement, the City's Rialto Municipal Code applies. Although a zone change from the existing Single-Family Residential (R-1A) would be required as part of the implementation of the Specific Plan, compliance with the development standards of the Specific Plan, once it has been adopted, would ensure that development would not conflict with the standards and regulations of the City's Zoning Ordinance. Therefore, with approval of the proposed zone change, the Specific Plan would be considered consistent with the regulations of the City's Zoning Ordinance and respective land use impacts would be less than significant.

e. Cumulative Impacts

Chapter 3, Basis for Cumulative Analysis, of this EIR describes planned or recent related projects in the Project study area. Figure 3-1, *Related Projects Map*, illustrates the locations of all related projects. Related projects, in combination with the Project, have the potential to contribute to, or generate, cumulative impacts. Proximity to the Project Site increases the potential for related projects to occur within a similar line-of-sight or view field and, as such, would increase the potential to generate cumulative aesthetic impacts. The nearest related project to the Project Site is Related Project 9, which is located to the north of Baseline Road approximately 0.5 mile to the south of the Project Site. Related Project 9 consists of a shipping container storage yard on an approximately 12-acre site to north of the Meridian Avenue terminus, in the vicinity of the BNSF Railroad spur. The proposed storage yard would be in proximity to and consistent with other container storage facilities near the railroad track. The proposed shipping container facility would be low-rise in character and comprise primarily rows movable containers. Because of its height profile and distance from the Project Site, long-range views to the north and northwest across Related Project 9 in combination with the Project would not block views of the mountains or other scenic vistas from view locations, such as Baseline Road, that have views across Related Project 9 and the Project Site.

Related projects 2a through 2d are located south of Walnut Avenue in the vicinity of Cactus Avenue, approximately 1.8 miles to the west of the Project Site. Several related projects, including Related Projects 4a, 4b, and 5a through 5e, are located in existing urban areas south of the Project Site. Related Projects 4a and 4b are south of Foothill Boulevard to the southwest of the Project Site, which are over 1.7 miles from the Project Site. Related Projects 5a through 5e, are located farther to the south of Rialto Avenue and Merrill Avenue, respectively. As with Related Projects 2a through 2d, 4a, and 4b, these projects are located in existing urban areas and are sufficiently distant from the Project Site to not occur within the same field of view. As such,

these related projects would not block views across the Project Site. In addition, because of their existing urban settings, the development of Related Projects 2a through 2d, 4a, 4b, and 5a through 5e, in combination with the Project, would not cause a sufficient change in the visual character of the City to result in a cumulative significant impact. Related Projects 7, 8 and 10 are located to the north of the 210 Freeway and would not occur within the same line of sight as the Project and, in combination with the Project, would have no effect on scenic vistas. Therefore, the cumulative impact to views/scenic vistas would not be considered significant and the Project's contribution to this impact would not be considerable.

Regarding light and glare, with the exception of Related Projects 2c and 5d, which contain retail components and Related Project 9, a proposed storage facility, the majority of related projects are residential in character. Residential uses generate lower lighting effects and are considered areas of moderate ambient lighting. In these areas, nighttime lighting is used for safety and convenience and late evening light sources may be extinguished or reduced as activity levels decline. In the Project area, the 210 Freeway constitutes the highest night lighting source. Although any new development would further intensify the urban lighting environment, because of the primarily residential character of related projects, high levels of new light are not anticipated. In addition, because of the distance of the commercial related projects (Related Projects 2 and 4), which are approximately 1.8 and 2.5 miles from the Project Site, light sources are not anticipated to cumulatively combine with the Project. Further, Related Projects 2c and 5d are located in existing urban areas and would not substantially affect urban lighting conditions in those areas. Related projects in combination with the Project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Therefore, cumulative impacts related to ambient nighttime lighting would be less than significant.

4. Mitigation Measures

The Specific Plan would not result in significant impacts with regard to views/scenic vistas, aesthetics/visual character, light and glare and consistency with applicable land use policies and regulations and, therefore, no mitigation measures are required.

5. Level of Significance after Mitigation

Not applicable. All impacts related to views/scenic vistas, aesthetics/visual character, and light and glare would be less than significant given compliance with Specific Plan's Design Guidelines and Development Standards, as applicable. Additionally, the Specific Plan would be consistent with the applicable goals and policies contained in the Community Design Component of the City's General Plan.

6. References

City of Rialto, 2010. Rialto General Plan. Adopted December 2010, page 2-22. Available at: http://www.rialtoca.gov/documents/downloads/General_Plan_Update _2010.pdf.

B. Air Quality

1. Introduction

This section addresses potential effects on air quality associated with air emissions generated by the construction and operation of the proposed Pepper Avenue Specific Plan. The analysis also addresses the consistency of the Project with the air quality policies set forth within the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan and the City of Rialto General Plan. The analysis of Project-generated air emissions focuses on whether the Project would cause exceedance of an ambient air quality standard or SCAQMD significance threshold. Calculation worksheets, assumptions, and model outputs used in the analysis are contained in Appendix A-1 of the *Air Quality Technical Report*. The Air Quality Technical Report is included as Appendix B to this EIR.

2. Environmental Setting

a. Existing Conditions

(1) Regional Setting

The proposed Pepper Avenue Specific Plan would encompass 101.7 acres on mostly undeveloped land in the eastern portion of the City of Rialto, located in the southwestern portion San Bernardino County. The Project Site is situated south of State Route 210 (SR-210), west of the BNSF Railroad, and northeast of single-family residences. The Project Site is located within the South Coast Air Basin (Basin), which is under the jurisdiction of the SCAQMD. The Basin includes the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The Project Site location, in a regional and a local context, is illustrated in **Figure 2.A-1**, *Regional Vicinity Map*.

(2) Climate and Meteorology

The Basin is an approximately 6,600-square-mile coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the southwest, and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The ambient concentrations of air pollutants in a given area are determined by the amount of air emissions released by pollutant sources and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality conditions, such as in the Project area, are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources.

Atmospheric conditions such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants. The topography and climate of Southern California combine to make the Basin an area with the potential for high air pollution concentrations.

The general region of the Project area lies in the semi-permanent high-pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The usually mild climatological pattern is disrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds. During the summer months, a warm air mass frequently descends over the cool, moist marine layer produced by the interaction between the ocean's surface and the lowest layer of the atmosphere. The warm upper layer forms a cap over the cool marine layer and inhibits the pollutants in the marine layer from dispersing upward. In addition, light winds during the summer further limit ventilation. Furthermore, sunlight triggers the photochemical reactions with ozone precursor emissions that produce ozone.

(3) Criteria Pollutants

The California Air Resources Board (CARB) and the United States Environmental Protection Agency (USEPA) currently focus on the following air pollutants as indicators of ambient air quality: ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable or breathable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM_{10}), fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less ($PM_{2.5}$), and lead. These pollutants are referred to as "criteria air pollutants" since they are the most prevalent air pollutants known to be harmful to human health, and an extensive number of health-effects criteria documents are available about their effects on human health and welfare. Federal standards have been established for the concentration of each criteria pollutant to meet specific public health and welfare criteria set forth in the federal Clean Air Act (CAA). California has generally adopted more stringent ambient air quality standards for the criteria air pollutants (referred to as State Ambient Air Quality Standards, or state standards) and has adopted air quality standards for some pollutants for which there is no corresponding national standard.

Ozone: Ozone is a gas, not emitted directly into the atmosphere, but is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and nitrogen oxides (NOx), known as precursor compounds for ozone. Significant ozone production generally requires ozone precursors to be present in a stable atmosphere with strong sunlight for approximately 3 hours. Ozone is a regional air pollutant because it is not emitted directly by sources, but is formed downwind of sources of ROG and NOx under the influence of wind and sunlight. Short-term exposure to ozone can irritate the eyes and cause constriction of the airways. Besides causing shortness of breath, ozone can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.

Carbon Monoxide: CO, a colorless and odorless gas, is a relatively nonreactive pollutant that is a product of incomplete combustion and is mostly associated with motor vehicle exhaust. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia. CO measurements and modeling were important in the early 1980s, when CO levels were regularly exceeded throughout California. In more recent years, CO measurements and modeling have not been a priority in most California air districts

because of the retirement of older polluting vehicles, lower CO emissions from new vehicles, and improvements in fuels.

Nitrogen Dioxide: NO_2 is a reddish-brown gas that is a by-product of combustion processes. Automobiles and industrial operations are the main sources of NO_2. Combustion devices emit primarily nitric oxide (NO), which reacts through oxidation in the atmosphere to form NO_2. The combined emissions of NO and NO_2 are referred to as NO_X, which are reported as equivalent NO_2. Aside from its contribution to ozone formation, NO_2 can increase the risk of acute and chronic respiratory disease and reduce visibility. NO_2 may be visible as a coloring component of a brown cloud on high-pollution days, especially in conjunction with high ozone levels.

Sulfur Dioxide: SO_2 is a colorless, extremely irritating gas (or liquid), which enters the atmosphere as a pollutant, mainly as a result of burning high-sulfur-content fuel oils and coal, and from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms sulfur trioxide (SO_3), collectively, referred to as sulfur oxides (SO_X). Major sources of SO_2 include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Emissions of SO_2 aggravate lung diseases, especially bronchitis, and constricts the breathing passages, especially in people with asthma and people involved in moderate to heavy exercise. SO_2 potentially causes wheezing, shortness of breath, and coughing. Long-term SO_2 exposure has been associated with increased risk of mortality from respiratory or cardiovascular disease.

Respirable Particulate Matter: PM_{10} and $PM_{2.5}$ represent fractions of particulate matter that can be inhaled into the air passages and the lungs and can cause adverse health effects. Acute and chronic health effects associated with high levels of particulate matter include the aggravation of chronic respiratory diseases, heart and lung disease, and coughing, bronchitis, and respiratory illnesses in children. Recent mortality studies have shown an association between morbidity and mortality and daily concentrations of particulate matter in the air. Particulate matter can also damage materials and reduce visibility. One common source of $PM_{2.5}$ is diesel exhaust emissions.

PM_{10} consists of particulate matter emitted directly into the air (e.g., fugitive dust, soot, and smoke from mobile and stationary sources, construction operations, fires, and natural windblown dust) and particulate matter formed in the atmosphere by condensation and/or transformation of SO_2 and ROGs. Vehicle traffic generates particulate matter emissions through the entrainment of dust and dirt particles that settle onto roadways and parking lots. PM_{10} and $PM_{2.5}$ are also emitted by wood burning in residential wood stoves and fireplaces and open agricultural burning. $PM_{2.5}$ can also be formed through secondary processes such as airborne reactions with certain pollutant precursors, including ROGs, ammonia, NOx, and SOx.

Lead: Ambient lead concentrations meet both the federal and state standards in the Project area. Lead has a range of adverse neurotoxin health effects, and was formerly released into the atmosphere primarily via leaded gasoline products. The phase-out of leaded gasoline in California resulted in decreasing levels of atmospheric lead. The Project would not introduce any new sources of lead emissions; consequently, lead emissions are not required to be quantified and are not further evaluated in this analysis.

(4) Toxic Air Contaminants

Concentrations of toxic air contaminants (TACs), or in federal parlance, hazardous air pollutants (HAPs), are also used as indicators of ambient air quality conditions. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

According to The California Almanac of Emissions and Air Quality (CARB, 2013), the majority of the estimated health risk from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines (diesel particulate matter). Diesel particulate matter (PM) differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances. Although diesel particulate matter is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present.

Unlike the other TACs, no ambient monitoring data are available for diesel particulate matter because no routine measurement method currently exists. However, CARB has made preliminary concentration estimates based on a particulate matter exposure method. This method uses the CARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of diesel particulate matter. In addition to diesel particulate matter, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene.

(5) Odorous Emissions

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). Offensive odors are unpleasant and can lead to public distress, generating citizen complaints to local governments. Although unpleasant, offensive odors rarely cause physical harm. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source, wind speed, direction, and the sensitivity of receptors.

(6) Existing Air Quality

SCAQMD maintains monitoring stations within district boundaries that monitor air quality and compliance with associated ambient standards. The Project Site is located in San Bernardino County. The nearest monitoring station to the Project Site is the San Bernardino 4th Street monitoring station (24302 4th St., San Bernardino, CA). This station monitors ambient concentrations of ozone, NO_2, CO, PM_{10}, and $PM_{2.5,}$ but does not monitor SO_2. The nearest monitoring station that monitors ambient concentrations of SO_2 is the Fontana – Arrow Highway Monitoring Station. Concentrations from the monitoring stations for the most recent three years (2013–2015) are shown in **Table 4.B-1**.

TABLE 4.B-1
AIR QUALITY DATA SUMMARY (2013–2015)

Pollutant	Standard[a]	Monitoring Data by Year 2013	2014	2015
Ozone – San Bernardino- 4th Street Monitoring Station				
Highest 1 Hour Average (ppm)		0.139	0.121	0.134
Days over State Standard	0.09 ppm	22	38	52
Highest 8 Hour Average (ppm)		0.113	0.100	0.118
Days over National Standard	0.070 ppm	36	51	57
Days over State Standard	0.070 ppm	53	76	79
Carbon Monoxide – San Bernardino- 4th Street Monitoring Station				
Highest 1 Hour Average (ppm)		3.8	4.1	2.3
Days over National Standard	35 ppm	0	0	0
Days over State Standard	20 ppm	0	0	0
Highest 8 Hour Average (ppm)		1.7	2.4	*
Days over National Standard	9 ppm	0	0	0
Days over State Standard	9.0 ppm	0	0	0
Nitrogen Dioxide – San Bernardino- 4th Street Monitoring Station				
Highest 1 Hour Average (ppm)		0.0721	0.0726	0.0714
Days over National Standard	0.100 ppm	0	0	0
Days over State Standard	0.180 ppm	0	0	0
Sulfur Dioxide – Fontana- Arrow Highway Monitoring Station				
Highest 1 Hour Average (ppm)		0.0043	0.0040	0.0041
Days over State Standard	0.25 ppm	0	0	0
Particulate Matter (PM_{10}) – San Bernardino- 4th Street Monitoring Station				
Highest 24 Hour Average ($\mu g/m^3$)[b]		117.3	157.2	187.0
Days over National Standard (measured)[c]	150 μg/m3	1	1	1
Days over State Standard (measured)[c]	50 μg/m3	2	2	3
Highest Annual Average ($\mu g/m^3$)[b]	20 μg/m3	32.7	35.8	33.0
Particulate Matter ($PM_{2.5}$) – San Bernardino- 4th Street Monitoring Station				
Highest 24 Hour Average ($\mu g/m^3$)[b]		55.3	32.2	53.5
Days over National Standard (measured)[c]	35 μg/m3	1	0	2
Highest Annual Average ($\mu g/m^3$)[b]	12 μg/m3	11.4	*	10.7

NOTES:
ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter.
* = Insufficient data available to determine the value.

[a] Generally, state standards and national standards are not to be exceeded more than once per year.

[b] Concentrations and averages represent federal statistics. State and federal statistics may differ because of different sampling methods.

[c] Measurements are usually collected every six days. Days over the standard represent the measured number of days that the standard has been exceeded.

SOURCE: CARB, 2016a. SCAQMD, 2014.

Both CARB and USEPA use this type of monitoring data to designate areas according to their attainment status for criteria air pollutants. The purpose of these designations is to identify the areas with air quality problems and thereby initiate planning efforts for improvement. The three basic designation categories are nonattainment, attainment, and unclassified. Unclassified is used in an area that cannot be classified on the basis of available information as meeting or not meeting the standards. In addition, the California designations include a subcategory of nonattainment-transitional, which is given to nonattainment areas that are progressing and nearing attainment. The current attainment status for the Project area is provided in **Table 4.B-2.**

TABLE 4.B-2
PROJECT AREA ATTAINMENT STATUS

	Designation/Classification	
Pollutant	**Federal Standards**	**State Standards**
Ozone – 1 hour	No Federal Standard	Nonattainment
Ozone – 8 hour	Nonattainment	Nonattainment
PM_{10}	Attainment	Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Unclassified/Attainment	Attainment
Nitrogen Dioxide	Unclassified/Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Lead	Unclassified/Attainment	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility-Reducing Particles	No Federal Standard	Unclassified

SOURCE: CARB, 2015.

(7) Sensitive Receptors

Land uses such as schools, hospitals, and convalescent homes are considered to be sensitive to poor air quality conditions because infants, children, the elderly, and people with health afflictions (especially respiratory ailments) are more susceptible to respiratory infections and other air-quality-related health problems than the general public. Residential areas are also considered to be sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present.

Sensitive receptors will be most exposed to air pollution when in close proximity to construction activity (i.e., fugitive dust, mobile emissions, etc.). Construction activity is limited to the areas of Community Commercial and Residential land uses on the Project Site. No construction is anticipated to occur on the Open Space or Public Facility land uses. Therefore, the nearest sensitive receptor to any area of construction is the semi-rural residence located approximately 200 feet east of the Project Site, directly across the Union Pacific railroad. Other sensitive land uses surrounding the Project Site include Frisbie Park located approximately 700 feet west of the

northern portion of the construction area and single-family residences approximately 800 feet southwest of the construction area, directly across Shirley Bright road.

b. Regulatory Framework

Regulation of air pollution is achieved through both national and state ambient air quality standards and through emissions limits on individual sources of air pollutants. Local air quality management districts (AQMDs) and air pollution control districts (APCDs) are responsible for demonstrating attainment with state air quality standards through the adoption and enforcement of Attainment Plans.

(1) Federal

a. Federal Clean Air Act

The Federal CAA requires the USEPA to identify National Ambient Air Quality Standards (NAAQS or national standards) to protect public health and welfare. National standards have been established for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, PM_{10}, $PM_{2.5}$, and lead. **Table 4.B-3** shows current national and state ambient air quality standards and provides a brief discussion of the related health effects and principal sources for each pollutant. Pursuant to the 1990 Federal Clean Air Act Amendments (CAAA), the USEPA classifies air basins (or portions thereof) as "attainment" or "nonattainment" for each criteria air pollutants, based on whether or not the NAAQS had been achieved, as shown in Table 4.B-2.

b. State Implementation Plan

The CAA requires each state to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The CAAA added requirements for states containing areas that violate the NAAQS to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is a living document that is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The USEPA has responsibility to review all state SIPs to determine if they conform to the mandates of the CAAA and will achieve air quality goals when implemented. If the USEPA determines a SIP to be inadequate, it may prepare a Federal Implementation Plan (FIP) for the nonattainment area and may impose additional control measures. Failure to submit an approvable SIP or to implement the plan within mandated timeframes can result in sanctions being applied to transportation funding and stationary air pollution sources in the air basin.

(2) State

a. California Air Resources Board

CARB, a department of the California Environmental Protection Agency, oversees air quality planning and control throughout California. CARB is responsible for coordination and oversight of state and local air pollution control programs in California and for implementation of the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, requires CARB to establish the California Ambient Air Quality Standards (CAAQS). CARB has established

CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. Applicable CAAQS are shown in Table 4.B-3.

TABLE 4.B-3
STATE AND NATIONAL CRITERIA AIR POLLUTANT STANDARDS, EFFECTS, AND SOURCES

Pollutant	Averaging Time	State Standard	National Standard	Pollutant Health and Atmospheric Effects	Major Pollutant Sources
Ozone	1 hour	0.09 ppm	---	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.	Formed when reactive organic gases (ROG) and nitrogen oxides (NOx) react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial / industrial mobile equipment.
	8 hours	0.07 ppm	0.070 ppm		
Carbon Monoxide	1 hour	20 ppm	35 ppm	Classified as a chemical asphyxiant, carbon monoxide interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm		
Nitrogen Dioxide	1 hour	0.18 ppm	0.100 ppm	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads.
	Annual Avg.	0.030 ppm	0.053 ppm		
Sulfur Dioxide	1 hour	0.25 ppm	0.75 ppm	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	3 hours	---	0.50 ppm		
	24 hours	0.04 ppm	0.14 ppm		
	Annual Avg.	---	0.03 ppm		
Respirable Particulate Matter (PM_{10})	24 hours	50 $\mu g/m^3$	150 $\mu g/m^3$	May irritate eyes and respiratory tract, decreases in lung capacity, cancer and increased mortality. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	Annual Avg.	20 $\mu g/m^3$	---		
Fine Particulate Matter ($PM_{2.5}$)	24 hours	---	35 $\mu g/m^3$	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and results in surface soiling.	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning; Also, formed from photochemical reactions of other pollutants, including NOx, sulfur oxides, and organics.
	Annual Avg.	12 $\mu g/m^3$	12 $\mu g/m^3$		
Lead	Monthly Avg.	1.5 $\mu g/m3$	---	Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurological dysfunction.	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Quarterly	---	1.5 $\mu g/m^3$		
Hydrogen Sulfide	1 hour	0.03 ppm	No National Standard	Nuisance odor (rotten egg smell), headache and breathing difficulties (higher concentrations)	Geothermal Power Plants, Petroleum Production and refining
Sulfates	24 hour	25 $\mu g/m^3$	No National Standard	Breathing difficulties, aggravates asthma, reduced visibility	Produced by the reaction in the air of SO_2.
Visibility Reducing Particles	8 hour	Extinction of 0.23/km; visibility of 10 miles or more	No National Standard	Reduces visibility, reduced airport safety, lower real estate value, discourages tourism.	See $PM_{2.5}$.

ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter.
SOURCES: CARB, 2016b. CARB, 2001.

The CCAA requires all local air districts in the state to endeavor to achieve and maintain the CAAQS by the earliest practical date. The act specifies that local air districts shall focus particular attention on reducing the emissions from transportation and area-wide emission sources, and provides districts with the authority to regulate indirect sources.

Among CARB's other responsibilities are overseeing compliance by local air districts with California and federal laws; approving local air quality plans; submitting SIPs to USEPA; monitoring air quality; determining and updating area designations and maps; and setting emissions standards for new mobile sources, consumer products, small utility engines, off-road vehicles, and fuels.

b. CARB *On-Road and Off*-Road Vehicle Rules

In 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel PM and other TACs. The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given time.

c. CARB Air Quality and Land Use Handbook

CARB published the *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook), which provides guidance concerning land use compatibility with TAC sources. Although it is not a law or adopted policy, the Handbook offers advisory recommendations for the siting of sensitive receptors near uses associated with TACs, such as freeways and high-traffic roads, commercial distribution centers, rail yards, ports, refineries, dry cleaners, gasoline stations, and industrial facilities, to help keep children and other sensitive populations out of harm's way. The Handbook recommends that lead agencies avoid citing new sensitive land uses within 500 feet of a freeway and within 1,000 feet of a major service and maintenance rail yard. If within 1 mile of a rail yard, it recommends possible siting limitations and mitigation approaches.

d. California Green Building Standard Code

In January 2010, the State of California adopted the 2010 California Green Building Standards Code (CALGreen), which became effective in January 2011. Building off of the initial 2008 California Green Building Code, the 2010 CALGreen Code represents a more stringent building code that requires, at a minimum, that new buildings and renovations in California meet certain sustainability and ecological standards. The 2010 CALGreen Code has mandatory Green Building provisions for all new residential buildings that are three stories or fewer (including hotels and motels) and all new non-residential buildings of any size that are not additions to existing buildings.

In early 2013, the California Building Standards Commission adopted the 2013 California Building Standards Code that also included the latest 2013 CALGreen Code, which became effective on January 1, 2014. The mandatory provisions of the code are anticipated to reduce 3 MMT of GHG emissions by 2020, reduce water use by 20 percent or more, and divert 50 percent

of construction waste from landfills. The 2013 California Energy Code (Title 24, Part 6), which is also part of the CALGreen Code (Title 24, Part 11, Chapter 5.2), became effective on July 1, 2014.

(3) Local

a. SCAQMD

The SCAQMD has jurisdiction over an area of approximately 10,743 square miles, including the Project area. The SCAQMD adopted an Air Quality Management Plan (AQMP) in December 2012 for determination of the significance of a project's contribution to local or regional pollutant concentrations. The purpose of the AQMP is to set forth a comprehensive program that will lead the Basin into compliance with the Federal 24-hour $PM_{2.5}$ air quality standard, and to provide an update to the Basin's commitments towards meeting federal 8-hour ozone standards (AQMP, 2013).

The SCAQMD published a *CEQA Air Quality Handbook* (the Handbook) in November 1993 to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts. The Handbook provides standards, methodologies, and procedures for conducting air quality analyses in EIRs and was used extensively in the preparation of this analysis. However, the SCAQMD is currently in the process of replacing the Handbook with the *Air Quality Analysis Guidance Handbook*. While this process is underway, the SCAQMD recommends that the lead agency avoid using the screening tables in the Handbook's Chapter 6, because the tables were derived using an obsolete version of CARB's mobile source emission factor inventory, and the trip generation characteristic of the land uses identified in these screening tables were based on an older edition of the ITE Trip Generation Manual, instead of the most current ninth edition. Additionally, the lead agency should avoid using the on-road mobile source emission factors in Table A9-5-J1 through A9-5-L in the Handbook. The SCAQMD instead recommends using other approved models to calculate emissions from land use projects, such as the California Emissions Estimator Model (CalEEMod) model.

In addition, the SCAQMD has published a document called *Localized Significance Threshold Methodology* that is intended to provide voluntary guidance for lead agencies in analyzing localized air quality impacts from projects. In October 2006, the SCAQMD adopted additional guidance regarding $PM_{2.5}$ in a document called *Final – Methodology to Calculate Particulate Matter $PM_{2.5}$ and $PM_{2.5}$ Significance Thresholds* (SCAQMD, 2006). The *Final Localized Significance Threshold Methodology* was revised in July 2008 to include the PM2.5 significant threshold methodology and update the LST Mass Rate Look-up Tables for the 1-hour NO_2 AAQS from 0.25 ppm to 0.18 ppm (SCAQMD, 2008). These documents were also used in the preparation of this analysis.

The SCAQMD has also adopted land use planning guidelines in the May 2005 *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning* which, like the CARB Handbook, also considers impacts to sensitive receptors from facilities that emit TACs. SCAQMD's distance recommendations are the same as those provided by CARB (e.g., the same siting criteria for distribution centers and dry cleaning facilities). The SCAQMD's document introduces land use-related policies that rely on design and distance parameters to manage

potential health risk (SCAQMD, 2005). These guidelines are voluntary initiatives recommended for consideration by local planning agencies.

b. SCAQMD Rules and Regulations

All projects are subject to SCAQMD rules and regulations in effect at the time of construction. The Pepper Avenue Specific Plan Project could be subject to SCAQMD rules and regulations including, but not limited to:

Rule 401 – Visible Emissions: This rule is intended to prevent the discharge of pollutant emissions from an emissions source that results in visible emissions. Specifically, the rule prohibits the discharge of any air contaminant into the atmosphere by a person from any single source of emission for a period or periods aggregating more than 3 minutes in any 1 hour that is as dark or darker in shade than that designated No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines.

Rule 402 – Nuisance: This rule is intended to prevent the discharge of pollutant emissions from an emissions source that results in a public nuisance. Specifically, this rule prohibits any person from discharging quantities of air contaminants or other material from any source such that it would result in an injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public. Additionally, the discharge of air contaminants would also be prohibited where it would endanger the comfort, repose, health, or safety of any number of persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. This rule does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

Rule 403 – Fugitive Dust: This rule is intended to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (human-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. Rule 403 applies to any activity or human-made condition capable of generating fugitive dust, and requires best available control measures to be applied to earthmoving and grading activities.

Rule 1113 – Architectural Coatings: This rule limits the amount of volatile organic compounds from architectural coatings and solvents, which lowers the emissions of odorous compounds.

c. Southern California Association of Governments

SCAG is a council of governments for Los Angeles, Orange, Riverside, San Bernardino, Imperial, and Ventura Counties. SCAG is a regional planning agency and serves as a forum for regional issues relating to transportation, the economy and community development, and the environment. SCAG is the federally designated metropolitan planning organization (MPO) for the majority of the Southern California region and is the largest MPO in the nation. With regard to air quality planning, SCAG prepares the Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP), which address regional development and growth forecasts and form the basis for the land use and transportation control portions of the AQMP and are utilized in the preparation of the air quality forecasts and consistency analysis included in the

AQMP. The RTP, RTIP, and AQMP are based on projections originating within local jurisdictions.

Although SCAG is not an air quality management agency, it is responsible for developing transportation, land use, and energy conservation measures that affect air quality. SCAG's Regional Comprehensive Plan (RCP) provides growth forecasts that are used in the development of air quality–related land use and transportation control strategies by the SCAQMD. The RCP is a framework for decision-making for local governments, assisting them in meeting federal and state mandates for growth management, mobility, and environmental standards, while maintaining consistency with regional goals regarding growth and changes through the year 2015, and beyond. Policies within the RCP include consideration of air quality, land use, transportation, and economic relationships by all levels of government.

On April 4, 2012, SCAG adopted the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Using growth forecasts and economic trends, the RTP provides a vision for transportation throughout the region for the next 20 years. The RTP considers the role of transportation in the broader context of economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address mobility needs. The SCS is a newly required element of the RTP, which integrates land use and transportation strategies to achieve CARB emissions reduction targets. The inclusion of the SCS is required by Senate Bill 375 (SB 375) which was enacted to reduce greenhouse gas emissions from automobiles and light trucks through integrated transportation, land use, housing and environmental planning. The RTP/SCS successfully achieves and exceeds the greenhouse gas emission-reduction targets set by ARB by achieving a 9% reduction by 2020 and 16% reduction by 2035 compared to the 2005 level on a per capita basis. This RTP/SCS also meets criteria pollutant emission budgets set by the EPA.

The 2012–2035 RTP/SCS includes a strong commitment to reduce emissions from transportation sources to comply with SB 375, improve public health, and meet the NAAQS as set forth by the federal CAA. Even with ongoing aggressive control strategies, ever more stringent national O_3 standards require further NOx emission reductions in the SCAG region. In the Basin, for example, it is estimated that NOx emissions will need to be reduced by approximately two-thirds in 2023 and three-quarters in 2030. Most sources of NOx emissions, cars and factories, are already controlled by over 90 percent. The level of emission reduction required is so significant that 2030 emissions forecasted from just three sources—ships, trains, and aircraft—would lead to O_3 levels near the federal standard. To accomplish the reduction required to meet O_3 standards, the 2012–2035 RTP/SCS contains a regional commitment for the broad deployment of zero- and near-zero emission transportation technologies in the 2023–2035 timeframe and clear steps to move toward this objective.

d. San Bernardino Associated Governments

The San Bernardino Associated Governments (SANBAG), a subregional organization under SCAG, was created in large part to organize all of the local municipalities within the San Bernardino County to maintain its circulation system. SANBAG effectively acts as the transportation planning agency of the County and is responsible for the coordination of roadway

improvements, public transportation, and congestion management. Under Proposition 111, urban regions with populations of more than 50,000 are required to adopt a congestion management program (CMP). As the designated Congestion Management Agency, SANBAG adopted the County's CMP in June 1990. Under the CMP, all managed segments are required to operate at a level of service (LOS) of E or better, with the exception of roadway segments that have been designated LOS F in the 2001 CMP.

e. City of Rialto General Plan

Adopted in December 2010, the General Plan provides a vision and blueprint for the City's long-term physical development. Air quality is discussed in the Open Space and Conservation chapter, which outlines sources of air pollution, as well as goals and policies related to the regulation of air quality. Goals and policies relevant to the Project include, but are not limited to:

Goal 2-35: Reduce air pollution emissions from both mobile and stationary sources in the City.

Policy 2-35.2: Require that new development projects incorporate design features that encourage ridesharing, transit use, park and ride facilities, and bicycle and pedestrian circulation.

Policy 2-35.4: Require new development and significant redevelopment proposals to incorporate sufficient design and operational controls to prevent release of noxious odors beyond the limits of the development site.

Goal 2-36: Reduce the amount of fugitive dust released into the atmosphere.

Policy 2-36.2: Support programs and policies of the South Coast Air Quality Management District regarding restrictions on grading operations at construction projects.

3. Environmental Impacts

a. Methodology

This air quality analysis focuses on the nature and magnitude of the change in the air quality environment due to implementation of the Project. Air pollutant emissions associated with the Project would result from operations of the future commercial, retail, public facility and potential residential developments at the Project Site and from traffic volumes generated by these new uses. Construction activities would also generate air pollutant emissions at the Project Site and on roadways resulting from construction-related traffic. The net increase in emissions generated by these activities and other secondary sources have been estimated and compared to the applicable thresholds of significance recommended by SCAQMD.

The Project Site is mostly vacant, with the exception of the recently constructed Pepper Avenue roadway extension, which bisects the Project Site in a north-south direction, and the West Valley Water District facility, which includes three production wells, a pump station, and a reservoir (all to remain as part of the Project). There are no existing buildings or structures on the Project Site that will be demolished as part of the construction phase. Proposed land uses include community

commercial uses with up to approximately 462,000 square feet (SF) of retail shopping center and 125,000 SF of business park uses. In addition, a residential overlay would allow up to 275 multi-family dwelling units, which if developed, would replace 116,000 SF of retail shopping center, leaving a total of 346,000 SF of retail shopping center use.

The proposed Pepper Avenue Specific Plan consists of two future development scenarios. For the purpose of this analysis, Project impacts will be analyzed based on these two different development scenarios of the Specific Plan.

- Scenario 1 (S1) would consist of the development of community commercial, open space, and public facility uses on the Project Site.
- Scenario 2 (S2) would consist of the development of community commercial, open space, and public facility uses, as well as the development of a residential overlay that would transfer retail uses to open space area.

Operational uses on the Project Site could be opened as early as 2017. For this opening year of operation, 10 percent build was assumed for CalEEMod inputs to account for worst-case of gradual build over 19 years. Residential uses in Scenario 2 were assumed as a full build in the first phase to represent the worst-case scenario of a front-loaded construction. The Project is anticipated to be fully built out and operational in 2035. Therefore, operational emissions are considered for the first year (2017) and buildout year (2035) in the following analyses.

(1) Construction Impacts

Construction of the proposed Pepper Avenue Specific Plan has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated from construction workers traveling to and from the Project Site. In addition, fugitive dust emissions would result from grading, soil movement and construction activities.

Construction emissions are considered short term and temporary, but have the potential to represent a significant impact with respect to air quality. Particulate matter (i.e., PM_{10} and $PM_{2.5}$) are among the pollutants of greatest localized concern with respect to construction activities. Particulate emissions from construction activities can lead to adverse health effects and nuisance concerns, such as reduced visibility and soiling of exposed surfaces. Particulate emissions can result from a variety of construction activities, including excavation, grading, demolition, vehicle travel on paved and unpaved surfaces, and vehicle and equipment exhaust. Construction emissions of PM can vary greatly depending on the level of activity, the specific operations taking place, the number and types of equipment operated, local soil conditions, weather conditions, and the amount of earth disturbance.

Emissions of ozone precursors ROG and NOx are primarily generated from mobile sources and vary as a function of vehicle trips per day associated with debris hauling, delivery of construction materials, vendor trips, and worker commute trips, and the types and number of heavy-duty, off-road equipment used and the intensity and frequency of their operation. A large portion of construction-related ROG emissions also result from the application of architectural coatings and vary depending on the amount of coatings applied each day.

It is mandatory for all construction projects in the SCAB to comply with SCAQMD Rule 403 for controlling fugitive dust. Incorporating Rule 403 into the Project would reduce regional PM_{10} and $PM_{2.5}$ emissions from construction activities. Specific Rule 403 control requirements include, but are not limited to, applying water in sufficient quantities to prevent the generation of visible dust plumes, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the Project Site, covering all trucks hauling soil with a fabric cover and maintaining a freeboard height of 12 inches, and maintaining effective cover over exposed areas. Compliance with Rule 403 was accounted for in the construction emissions modeling. Site watering would reduce the particulate matter from becoming airborne, while washing of transport vehicle tires and undercarriages would reduce re-entrainment of construction dust onto the local roadway network. Mass daily emissions during construction were calculated using the California Emissions Estimator Model (CalEEMod) version 2013.2.2, which is an emissions estimation/evaluation model developed in conjunction with SCAQMD and other California Air Districts. CalEEMod was used to assist in quantifying emissions from construction activities for the proposed Pepper Avenue Specific Plan for a worst-case year. Construction emissions are associated with construction equipment, construction-related vehicle trips, and off-gas emissions from painting and paving. There are typically four major construction phases for development projects: demolition, site preparation, grading, and building construction. The building construction phase can be broken down into three sub-phases: building construction, architectural painting, and asphalt paving. As the majority of the proposed Pepper Avenue Specific Plan site is situated on undeveloped land, there would be no demolition activity.

The Project Site could be developed in one or more phases, with the earliest construction beginning in late 2016. A worst-case construction scenario would occur if various construction phases occur simultaneously during development. For example, grading could begin on an area for residential units while building construction is ongoing for a retail office space. Thus, a conservative analysis of construction emissions is implemented by analyzing two phase overlapping situations for daily maximum regional emissions. Situation A includes building construction, architectural coating, and site preparation or grading (whichever is greater of the two); Situation B includes building construction, architectural coating, site preparation or grading (whichever is greater of the two), and paving. The sum of these daily construction emissions will be compared to significance thresholds to determine if mitigation will be required. See Impact Statement AQ-2 for more detail.

The output values used in this analysis were adjusted to be as Project-specific as possible, based on usage rates of construction equipment, type of fuel, and construction schedule. As a specific plan, the Project lacks project-specific detail, and thus defaults in CalEEMod were used for details that were not provided. For a complete listing of the construction equipment by phase and construction phase duration assumptions used in this analysis is included within the CalEEMod printout sheets that are provided in Appendix A-1 of the *Air Quality Technical Report*.

Mobile source emissions, primarily NO_X, would result from the use of construction equipment such as bulldozers, wheeled loaders, and cranes. During the building construction phase, the application of architectural coatings (i.e., paints) and other building materials would release

emissions of volatile organic compounds. Construction emissions can vary substantially from day-to-day, depending on the level of activity, the specific type of operation and, for fugitive dust, the prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources. The equipment mix and construction duration for each stage is detailed in Appendix A-1 of the *Air Quality Technical Report*.

The amount of construction equipment used and the duration of construction activity could have a substantial effect upon the amount of construction emissions, concentrations and the resulting impacts occurring at any one time. As such, the emission forecasts provided reflect a specific set of conservative assumptions based on the expected construction scenario wherein a relatively large amount of construction is occurring in a relatively intensive manner.

In addition to regional pollutant emissions, localized impacts on sensitive receptors must also be addressed. The potential for localized effects from on-site daily emissions are evaluated at nearby sensitive receptor locations. Impacts by the Project are evaluated based on the SCAQMD's LST methodology, which utilizes on-site mass emission rate look-up tables and project specific modeling, where appropriate. LSTs are only applicable to the following criteria pollutants: NO_x, CO, PM_{10}, and $PM_{2.5}$. LSTs represent the maximum emissions from a project that are not expected to 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) and distance to the nearest sensitive receptor. For PM_{10} and $PM_{2.5,}$ LSTs were derived based on requirements in SCAQMD Rule 403, Fugitive Dust. The mass rate look-up tables were developed for each SRA and can be used to determine whether or not a project may generate significant adverse localized air quality impacts.

For the purpose of analyzing localized air quality impacts, SCAQMD has developed LSTs for 1-acre, 2-acre and 5-acres project sizes. Under conditions where the Project's on-site construction emissions, with or without mitigation is below the LST threshold, the Project is would result in less than significant impacts. Where emissions, implementing all appropriate mitigation, exceed the LSTs, air dispersion modeling would be required to fully evaluate the potential impacts of the Project on its surrounding off-site sensitive receptors.

A complete listing of the construction equipment by phase, construction phase duration, and emissions estimation model assumptions used in this analysis is included within the emissions calculation worksheets that are provided in Appendix A-1 of the *Air Quality Technical Report*.

(2) Operational Impacts

Long-term (i.e., operational) regional emissions of criteria air pollutants and precursors associated with the Project, including mobile- and area-source emissions, were also quantified using CalEEMod. Area-source emissions, which are widely distributed and made of many small emissions sources (e.g., building heating and cooling units, landscaping equipment, consumer products, painting operations, etc.), were modeled according to the size and type of land use proposed. Mass mobile-source emissions were modeled based on the daily vehicle trips that would result from the Project. Project trip generation rates were obtained from the Project's traffic study (Whiteman, 2016).

Since the current land uses existing on the parcels are vacant and undeveloped, it is assumed that the Pepper Avenue Specific Plan would not involve demolition and all operational emissions generated represent net new emissions for the Project. The resulting net new operational emissions were then compared with the applicable SCAQMD thresholds for determination of significance. Aside from regional air quality impacts, the Project's localized air quality impacts during operation is also analyzed by extracting the on-site operational emissions from the CalEEMod model run for the Project and evaluating those emissions against SCAQMD's applicable operational LSTs.

(3) Toxic Air Contaminants

Potential TAC impacts are evaluated by conducting a qualitative screening-level analysis followed by a more detailed analysis (i.e., dispersion modeling), as necessary. The screening-level analysis applies only to operations of projects and consists of identification of new or modified TAC emissions sources. If it is determined that a Project would introduce a potentially significant new source, or modify an existing TAC emissions source, then downwind sensitive receptor locations are identified and site-specific dispersion modeling is conducted to determine Project impacts.

The CARB screening criteria does not provide methodologies to address construction impacts of TAC emissions, i.e., diesel particulate matter. In order to address such impacts, CARB and SCAQMD guidance for evaluating operations impacts on the potential health risks to nearby residents and students were applied to the Project's construction activity with modification to address the short-term nature of the Project's construction to such impacts. The assessment of diesel particulate emissions was conducted to assess this potential risk using the same assumptions that were used for the analysis of localized air quality emissions, as discussed above. Diesel exhaust particulate matter (DPM) is a TAC of particular concern during construction projects for its potential to cause adverse respiratory and cardiovascular health effects. DPM is emitted by heavy equipment and generators as well as by the trucks that transport large quantities of materials to and from construction sites. As such, this analysis includes all diesel exhaust emissions associated with on-site heavy duty construction equipment and estimates the risk at nearby sensitive receptors.

Based on existing information, no heavy industrial uses are proposed as part of the Specific Plan. However, it is likely that some residential uses may be placed in proximity of proposed light industrial uses or future commercial/retail uses which may store or use toxic or hazardous materials, posing a potential health hazard to sensitive land uses such as residences. At this stage in the planning process, it is speculative to assume placement of hazardous waste generating uses in relation to residential uses. Therefore, health risk analysis of on-site light industrial/commercial uses is performed in a qualitative manner.

b. Thresholds of Significance

For purposes of this EIR, the City of Rialto has utilized the checklist questions in Appendix G of the *CEQA Guidelines* as thresholds of significance to determine whether a project would have a significant environmental impact regarding air quality. Based on applicable Project components

and Appendix G questions, the Project would result in a significant impact with regard to air quality if the Project would:

Threshold 1: Conflict with or obstruct implementation of the applicable air quality plan (refer to Impact Statement AQ-1).

Threshold 2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation (refer to Impact Statement AQ-2).

Threshold 3: 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) (refer to Impact Statement AQ-3).

Threshold 4: Expose sensitive receptors to substantial pollutant concentrations (refer to Impact Statement AQ-4).

Threshold 5: Create objectionable odors affecting a substantial number of people (refer to Impact Statement AQ-5).

As guided by Appendix G of the CEQA Guidelines, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the above determinations. As such, the significance thresholds and analysis methodologies in SCAQMD's *CEQA Air Quality Handbook* are used in evaluating Project impacts. The SCAQMD has established daily mass emissions thresholds for regional pollutant emissions, which are shown in **Table 4.B-4.**

TABLE 4.B-4
SCAQMD REGIONAL AIR QUALITY SIGNIFICANCE THRESHOLDS

	Mass Daily Thresholds (lbs/day)	
Pollutant	**Construction**	**Operations**
Oxides of Nitrogen (NO_X)	100	55
Reactive Organic Gases (ROG)	75	55
Respirable Particulate Matter (PM_{10})	150	150
Fine Particulate Matter ($PM_{2.5}$)	55	55
Oxides of Sulfur (SO_X)	150	150
Carbon Monoxide (CO)	550	550
TACs (including carcinogens and non-carcinogens	Maximum Incremental Cancer Risk ≥ 10 in 1 million	
	Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million)	
	Chronic & Acute Hazard Index ≥ 1.0 (Project increment)	

Source: SCAQMD, 2015.

Aside from regional air quality impacts, projects in the Basin are also required to analyze local air quality impacts. As discussed previously, SCAQMD has developed LSTs that represent the

maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards, and thus would not cause or contribute to localized air quality impacts. LSTs are developed based on the ambient concentrations of that pollutant for each of the 38 SRAs in the Basin. The localized thresholds, which are found in the mass rate look-up tables in SCAQMD's *Final Localized Significance Threshold Methodology* document, were developed for use on projects that are less than or equal to 5 acres in size and are only applicable to the following criteria pollutants: NOx, CO, PM_{10}, and $PM_{2.5}$. The applicable construction and operational LSTs for SRA 34 (Central San Bernardino Mountains), in which the City of Rialto is located, are shown in **Table 4.B-5**. The LSTs for a 2-acre and 5-acre site in SRA 34 are presented below.

TABLE 4.B-5
SCAQMD LOCALIZED AIR QUALITY SIGNIFICANCE THRESHOLDS

	Allowable emissions (pounds/day) as a function of receptor distance (feet) from site boundary				
	82 (ft.)	**164 (ft.)**	**328 (ft.)**	**656 (ft.)**	**1,640 (ft.)**
2-Acre Site in SRA 34 – Central San Bernardino Mountains					
Construction Thresholds					
Nitrogen Oxides (NO_x)[a]	170	200	263	378	684
Carbon Monoxide (CO)	972	1,463	2,738	6,346	23,304
Respirable Particulate Matter (PM_{10})	7	22	42	83	205
Fine Particulate Matter ($PM_{2.5}$)	4	6	12	26	104
Operational Thresholds					
Nitrogen Oxides (NO_x)[a]	270	302	378	486	778
Carbon Monoxide (CO)	1,746	2,396	4,142	8,532	27,680
Respirable Particulate Matter (PM_{10})	2	6	10	20	50
Fine Particulate Matter ($PM_{2.5}$)	1	2	3	7	25
5-Acre Site in SRA 34 – Central San Bernardino Mountains					
Construction Thresholds					
Nitrogen Oxides (NO_x)[a]	170	200	263	378	684
Carbon Monoxide (CO)	972	1,463	2,738	6,346	23,304
Respirable Particulate Matter (PM_{10})	14	44	65	106	229
Fine Particulate Matter ($PM_{2.5}$)	8	10	17	35	120
Operational Thresholds					
Nitrogen Oxides (NO_x)[a]	270	302	378	486	778
Carbon Monoxide (CO)	1,746	2,396	4,142	8,532	27,680
Respirable Particulate Matter (PM_{10})	4	11	16	26	55
Fine Particulate Matter ($PM_{2.5}$)	2	3	5	9	29

[a] The localized thresholds listed for NOx in this table take into consideration the gradual conversion of NO to NO_2.The analysis of localized air quality impacts associated with NOx emissions focuses on NO_2 levels as they are associated with adverse health effects.

SOURCE: SCAQMD, 2009.

According to the *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds* from SCAQMD, LSTs for construction emissions can be determined for a project based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment. The construction model inputs used for the analysis calculated that a maximum of 2.5 acres and 5.0 acres would be disturbed on a peak day for Scenario 1 and Scenario 2, respectively. Therefore, LSTs for a 2-acre site will be implemented for Scenario 1, and LSTs for a 5-acre site will be implemented for Scenario 2. CalEEMod Construction Model Inputs summary and calculation sheet can be found in Appendix A-1 of the *Air Quality Technical Report*.

It should be noted that with regards to NOx emissions, the two principal species of NOx are NO and NO_2, with the vast majority (95 percent) of the NOx emissions being comprised of NO. However, because adverse health effects are associated with NO_2, not NO, the analysis of localized air quality impacts associated with NOx emissions is focused on NO_2 levels. For combustion sources, SCAQMD assumes that the conversion of NO to NO_2 is complete at a distance of 5,000 meters from the source.

c. Project Design Features

The Specific Plan encourages the implementation of realistic sustainable design strategies into the Project design, which would reduce air pollution emissions. As discussed in Chapter 4, Design Guidelines, of the Specific Plan, sustainable design strategies that may be utilized in the Specific Plan include the following:

(1) Site Planning

Elements of sustainable design and site planning may include, but not be limited to, the following:

- Encourage developing a Traffic Demand Management program that supports alternatives to single occupancy vehicle use.
- Provide physical linkages throughout the Project Site that promote bicycling and walking.
- Concentrate development near local services and amenities.
- Encourage shared parking where determined possible.

(2) Energy Efficiency

Most buildings can reach energy efficiency levels that exceed California Title 24 standards, yet many only strive to meet the standard. It is reasonable to strive for energy reduction in excess of that required by Title 24 standards. At a minimum, all projects would also be required to comply with the California Green Building Standards. Where feasible and appropriate, the following strategies are encouraged, but not required:

- Passive design strategies can dramatically affect building energy performance. These measures include, but are not limited to, building shape and orientation, passive solar design, and the use of natural lighting.
- Incorporate the use of low-E windows or use Energy Star windows.

- Use a properly sized and energy-efficient heating/cooling system in conjunction with a thermally efficient building shell.
- Consider utilizing light colors for wall finish materials.
- Install high R-value wall and ceiling insulation.
- Installation of solar water heating systems that use rooftop solar technologies to offset natural gas use**.**
- Encouragement for new commercial businesses to install rooftop solar photovoltaic systems.
- Encouragement of new commercial and industrial facilities greater than 100,000 SF to install co-generation facilities that combine heat and power systems for energy output.

Development within the Project is encouraged to implement some of the strategies of the Energy Star program, which is an energy performance rating system developed by the U.S. Department of Energy and the Environmental Protection Agency. The program certifies products and buildings that meet strict energy-efficiency guidelines. Involvement in the Energy Star program would be completely optional at the discretion of the developer/builder.

(3) Materials Efficiency

Select sustainable construction materials and products by evaluating characteristics such as reused and recycled content, zero or low off gassing of harmful air emissions, zero or low toxicity, sustainably harvested materials, high recyclability, durability, longevity, and local production. Such products promote resource conservation and efficiency. Using recycled-content products also helps develop markets for recycled materials that are being diverted from California's landfills, as mandated by the Integrated Waste Management Act.

- Encourage the use of low VOC paints and wallpapers.
- Encourage the use of low VOC Green Label carpet.
- Use dimensional planning and other material efficiency strategies. These strategies reduce the amount of building materials needed and cut construction costs.
- Design with adequate space to facilitate recycling collection and to incorporate a solid waste management program that prevents waste generation.
- Establish a construction waste recycling program with a local waste management company, with a goal of recycling no less than 50 percent of the construction waste generated by construction of the Project. Excavated soil and land-clearing debris does not contribute to this requirement.
- The waste disposal company shall be responsible for providing recycle bin(s) to facilitate recycling.

d. Project Impacts

(1) Conflict with Applicable Air Quality Plan

Threshold AQ-1: A significant impact would occur if the Project would conflict with or obstruct implementation of the applicable air quality plan.

Impact Statement AQ-1: Implementation of the Project would not conflict with or obstruct implementation of the applicable air quality plan (including, but not limited to, the AQMP, RTP, general plans, etc.) adopted for the purpose of avoiding or mitigating an environmental effect. This impact is considered less than significant.

The Project Site is located within the SCAB, which is under the jurisdiction of the SCAQMD. As such, SCAQMD's 2012 AQMP is the applicable air quality plan for the Project. Projects that are consistent with the regional population, housing, and employment forecasts identified by SCAG are considered to be consistent with the AQMP growth projections, since the forecast assumptions by SCAG forms the basis of the land use and transportation control portions of the AQMP. Additionally, because SCAG's regional growth forecasts are based upon, among other things, land uses designated in general plans, a project that is consistent with the land use designated in a general plan would also be consistent with the SCAG's regional forecast projections, and thus also with the AQMP growth projections.

In the 2012 Regional Transportation Plan (RTP), SCAG identified population growth in the City of Rialto to increase from 110,000 in 2020 to 125,200 in 2035, an increase of 15,200 people by 2035 (SCAG, 2012). If Scenario 1 is adopted, no residential development would be constructed, and thus no new populations would be added to the Project Site. If Scenario 2 is adopted, the Project would introduce a population of 1,064 people to the Project Site, or 7 percent of the total anticipated increase. Therefore, the increase in population from the Project is accounted for in the SCAG growth assumptions for the City. Additionally, SCAG identifies employment growth for the City as increasing from 26,400 in 2020 to 32,800 in 2035 (SCAG, 2012). This is an increase in 6,400 jobs during this timeframe. The Project would result in an increase in 170 employees within the City, or 3 percent of the total anticipated employment increase (PCR, 2016). Therefore, the employment increase from the Project is accounted for in the SCAG growth projections.

Because the employment and population growth resulting from the Project would be consistent with SCAG's regional forecast projections, the Project would therefore be consistent with the growth projections accounted for in SCAQMD's AQMP. Therefore, the Project would not conflict with, or obstruct, implementation of the AQMP and this impact would be less than significant.

(2) Violation of Air Quality Standards

Threshold AQ-2: A significant impact would occur if the Project would violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Impact Statement AQ-2: Implementation of the Project could violate air quality standard or contribute substantially to an existing or projected air quality violation during Project construction activities. Maximum regional construction emissions resulting from construction of Scenario 1 or Scenario 2 of the Project would exceed the SCAQMD daily significance thresholds for NO_X, without mitigation resulting in potentially significant construction impacts. Regional emissions resulting from operation of the Project would not exceed any SCAQMD daily significance thresholds, with impacts being less than significant. Implementation of the prescribed mitigation would reduce the Project's potentially significant construction-related impacts to a less than significant level.

a. Construction

Currently, the Project Site is mostly vacant, with the exception of the recently constructed Pepper Avenue roadway extension, which bisects the site in a north-south direction, and a WVWD facility which includes three production wells, a pump station, and a reservoir (all to remain as part of the Project). Therefore, no demolition of existing structures would occur during the construction period. Under S1, the Project would construct community commercial land uses consisting of approximately 462,000 square feet (SF) of retail shopping areas and 125,000 SF of business park uses. Under S2, the Project would construct similar business park land uses under S1 and a reduce amount of retail uses, as well as 275 units of residential uses.

Construction activities associated with the Project would generate pollutant emissions from the following construction activities: (1) site preparation, grading, and excavation; (2) construction workers traveling to and from Project Site; (3) delivery and hauling of construction supplies to, and debris from, the Project Site; (4) fuel combustion by on-site construction equipment; (5) building construction; application of architectural coatings; and paving. These construction activities would temporarily create emissions of dust, fumes, equipment exhaust, and other air contaminants. The amount of emissions generated on a daily basis would vary, depending on the intensity and types of construction activities occurring simultaneously at the time.

Table 4.B-6 and **Table 4.B-7** summarizes the modeled unmitigated peak daily emissions of criteria air pollutants and ozone precursors associated with the Project's worst-case construction situations for Scenario 1 and Scenario 2, respectively. In order to analyze each worst-case construction scenario, the Project's construction impacts are analyzed with two different overlapping phase situations. Situation A includes building construction, architectural coating, and site preparation or grading (whichever is greater of the two); Situation B includes building construction, architectural coating, site preparation or grading (whichever is greater of the two), and paving. This methodology exemplifies a more accurate representation of the long-range construction schedule of the Project, where it is possible that two or more construction phases could occur simultaneously during the buildout of the Project. The sum of the maximum daily emissions from each construction phase, according to Situation A or Situation B, is compared to significance thresholds to determine if mitigation will be required.

TABLE 4.B-6
SCENARIO 1 REGIONAL UNMITIGATED CONSTRUCTION EMISSIONS

	Estimated Maximum Daily On- and Off-site Emissions (lbs/day)					
Construction Activities	**ROG**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation	5	55	42	<1	10	7
Grading	4	39	27	<1	5	3
Building Construction	4	30	23	<1	3	2
Architectural Coating	28	2	2	<1	<1	<1
Paving	2	20	16	<1	1	1
Situation A – Maximum Regional Emissions [a]	**37**	**87**	**67**	**<1**	**14**	**10**
Situation B – Maximum Regional Emissions [b]	**39**	**107**	**83**	**<1**	**15**	**11**
Regional SCAQMD Significance Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Exceeds Threshold?	No	**Yes**	No	No	No	No

NOTE: Construction emissions would be slightly different during the summer and winter seasons. Maximum daily emissions of ROG and NO_X would generally be higher during the winter while emissions of CO and SO_2 would generally be higher in the summer. The maximum emissions for each pollutant over the course of the summer and winter seasons are shown in this table.

[a] Situation A sums maximum daily emissions from the phases: Building Construction, Architectural Coating, and Site Preparation or Grading (which ever has a greater emissions value of the two)

[b] Situation B sums maximum daily emissions from the phases: Building Construction, Architectural Coating, Paving and Site Preparation or Grading (which ever has a greater emissions value of the two)

Source: ESA-PCR CalEEMod Modeling, June 2016

As shown in Table 4.B-6 and Table 4.B-7, the maximum daily construction emissions generated by the Project's worst-case construction situations would exceed SCAQMD's daily significance threshold for NOx during development of Situation B in Scenario 1 and development of Situations A and B in Scenario 2. Because the emissions of NOx could potentially exceed SCAQMD's significance thresholds on certain peak construction days, this impact would be potentially significant and would require mitigation.

TABLE 4.B-7
SCENARIO 2 REGIONAL UNMITIGATED CONSTRUCTION EMISSIONS

	Estimated Maximum Daily On- and Off-site Emissions (lbs/day)					
Construction Activities	**ROG**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation	5	55	42	<1	10	7
Grading	7	77	54	<1	10	7
Building Construction	8	63	57	<1	7	5
Architectural Coating	50	5	6	<1	1	<1
Paving	4	41	31	<1	3	2
Situation A – Maximum Regional Emissions [a]	**63**	**145**	**117**	**<1**	**18**	**13**
Situation B – Maximum Regional Emissions [b]	**67**	**186**	**148**	**<1**	**21**	**15**
Regional SCAQMD Significance Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Exceeds Threshold?	No	**Yes**	No	No	No	No

NOTE: Construction emissions would be slightly different during the summer and winter seasons. Maximum daily emissions of ROG and NO_X would generally be higher during the winter while emissions of CO and SO_2 would generally be higher in the summer. The maximum emissions for each pollutant over the course of the summer and winter seasons are shown in this table.

[a] Situation A sums maximum daily emissions from the phases: Building Construction, Architectural Coating, and Site Preparation or Grading (which ever has a greater emissions value of the two)

[b] Situation B sums maximum daily emissions from the phases: Building Construction, Architectural Coating, Paving and Site Preparation or Grading (which ever has a greater emissions value of the two)

Source: ESA-PCR CalEEMod Modeling, June 2016

Implementation of Mitigation Measure AQ-1 would require the use of EPA Rated Tier 4 (or equivalent) engines in order to reduce NOx emissions. The use of Tier 4 (or equivalent) engines is applied to all equipment in each phase in order to be reduced to below a significant level, as shown in the mitigated outputs below. In the event that all construction equipment cannot meet the Tier 4 engine certification, the applicant can demonstrate through future study that reductions in the daily NOx and $PM_{2.5}$ emissions can be achieved by other technologies/strategies so that emissions from all concurrent construction would not exceed applicable SCAQMD daily emission thresholds. Alternative measures may include, but would not be limited to: reduction in the number and/or horsepower rating of construction equipment, limiting the number of daily construction haul truck trips to and from the Specific Plan area, using cleaner vehicle fuel, and/or limiting the number of individual construction project phases occurring simultaneously (see Section 4, Mitigation Measure, for full description of mitigation measure). The mitigated maximum daily construction emissions for Scenario 1 and Scenario 2 that would result from implementation of Mitigation Measure AQ-1 are shown in **Table 4.B-8** and **4.B-9**, respectively. As shown, with implementation of mitigation, the maximum daily NOx emissions generated during Project construction would be reduced to below SCAQMD's daily significance thresholds. Therefore, with implementation of Mitigation Measure AQ-1, the impacts associated with these emissions would be reduced to a less than significant level.

TABLE 4.B-8
SCENARIO 1 REGIONAL MITIGATED CONSTRUCTION EMISSIONS

	Estimated Maximum Daily On- and Off-site Emissions (lbs/day)					
Construction Activities	**ROG**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation	1	12	24	0	7	0
Grading	1	12	21	0	3	0
Building Construction	1	13	23	0	1	0
Architectural Coating	28	1	2	0	0	0
Paving	0	10	18	0	0	0
Situation A – Maximum Regional Emissions [a]	**29**	**26**	**50**	**0**	**8**	**0**
Situation B – Maximum Regional Emissions [b]	**30**	**36**	**67**	**0**	**8**	**0**
Regional SCAQMD Significance Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Exceeds Threshold?	No	No	No	No	No	No

[a] Situation A sums maximum daily emissions from the phases: Building Construction, Architectural Coating, and Site Preparation or Grading (which ever has a greater emissions value of the two)

[b] Situation B sums maximum daily emissions from the phases: Building Construction, Architectural Coating, Paving and Site Preparation or Grading (which ever has a greater emissions value of the two)

Source: ESA-PCR CalEEMod Modeling, June 2016

TABLE 4.B-9
SCENARIO 2 REGIONAL MITIGATED CONSTRUCTION EMISSIONS

	Estimated Maximum Daily On- and Off-site Emissions (lbs/day)					
Construction Activities	**ROG**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation	1	12	24	0	7	0
Grading	1	23	43	0	5	0
Building Construction	3	27	56	0	3	0
Architectural Coating	46	2	6	0	1	0
Paving	1	20	35	0	0	0
Situation A – Maximum Regional Emissions [a]	**49**	**53**	**105**	**0**	**11**	**0**
Situation B – Maximum Regional Emissions [b]	**50**	**73**	**140**	**0**	**11**	**0**
Regional SCAQMD Significance Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Exceeds Threshold?	No	No	No	No	No	No

[a] Situation A sums maximum daily emissions from the phases: Building Construction, Architectural Coating, and Site Preparation or Grading (which ever has a greater emissions value of the two)

[b] Situation B sums maximum daily emissions from the phases: Building Construction, Architectural Coating, Paving and Site Preparation or Grading (which ever has a greater emissions value of the two)

Source: ESA-PCR CalEEMod Modeling, June 2016

b. Operation

Currently, land use on the Project Site is of low intensity or vacant and most parcels have no development. Thus, the following analysis assumes that all operational emissions from the Project are net new emissions. In actuality, future employees, residents, and visitors to the Pepper Avenue Specific Plan area may already work and shop within the Basin, so their emissions are already being counted. Thus, the analysis of counting all operational emissions as net new is conservative in nature and represents a worst-case scenario. Operational emissions would likely be less than what is projected.

Regional air pollutant emissions associated with Project operations would be generated by the consumption of electricity and natural gas, and by the operation of on-road vehicles. Pollutant emissions associated with energy demand (i.e., electricity generation and natural gas consumption) are classified by the SCAQMD as regional stationary source emissions. Mandatory provisions of the Title 24 California Green Building Code are incorporated into the emissions calculations, including water use reduction by 20 percent or more and diversion of 50 percent of construction waste from landfills. Criteria pollutant emissions associated with the production and consumption of energy were calculated using the CalEEMod emissions inventory model.

Mobile-source emissions for 2017 were calculated using CalEEMod with trip generation data from the Traffic Impact Analysis (Urban Crossroads, 2016). Mobile-source emissions for the full buildout in 2035 were calculated using EMFAC2014, since the use of a newer model would more accurately represent future operational mobile emissions of the Project. As shown in **Table 4.B-10** and **Table 4.B-11**, regional emissions resulting from operation of the proposed Pepper Avenue Specific Plan during the first year and the full buildout are below applicable thresholds for all criteria air pollutants under Scenario 1 and Scenario 2. Therefore, impacts related to regional emissions from operation of the Project would be less than significant.

TABLE 4.B-10
SCENARIO 1 REGIONAL UNMITIGATED OPERATIONAL EMISSIONS

	Estimated Emissions (lbs./day) [a]					
Regional Emissions	**VOC**	**NO_X**	**CO**	**SO_2**	**PM_{10} [b]**	**$PM_{2.5}$ [b]**
First Year Operations - 2017						
Area	3	<1	<1	<1	<1	<1
Energy	<1	1	<1	<1	<1	<1
Mobile	7	14	60	<1	9	3
Total Regional (On-Site and Off-Site) Emissions	**10**	**15**	**60**	**<1**	**9**	**3**
SCAQMD Numeric Indicators	*55*	*55*	*550*	*150*	*150*	*55*
Over (Under)	(45)	(40)	(490)	(150)	(141)	(52)
Exceeds Indicator?	No	No	No	No	No	No
Full Buildout - 2035						
Area	16	<1	<1	<1	<1	<1
Energy	<1	5	4	<1	<1	<1
Mobile [c]	22	46	141	1	86	23
Total Regional (On-Site and Off-Site) Emissions	**38**	**51**	**145**	**1**	**86**	**23**
SCAQMD Numeric Indicators	*55*	*55*	*550*	*150*	*150*	*55*
Over (Under)	(17)	(4)	(405)	(150)	(64)	(32)
Exceeds Indicator?	No	No	No	No	No	No

[a] Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be one unit more or less than actual values. Exact values (i.e., non-rounded) are provided in the CalEEMod model printout sheets and/or calculation worksheets that are provided in Appendix A-1.

[b] PM10 and PM2.5 emissions estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression.

[c] Mobile emissions for 2035 were calculated separately using EMFAC2014, based on daily vehicle miles traveled and emission factors for each pollutant. See Mobile Emissions Calculations sheet in Appendix A-1 for more details.

Source: ESA-PCR, 2016

TABLE 4.B-11
SCENARIO 2 REGIONAL UNMITIGATED OPERATIONAL EMISSIONS

	Estimated Emissions (lbs./day) [a]					
Regional Emissions	**VOC**	**NO_X**	**CO**	**SO_2**	**PM_{10} [b]**	**$PM_{2.5}$ [b]**
First Year Operations - 2017						
Area	10	<1	23	<1	<1	<1
Energy	<1	1	1	<1	<1	<1
Mobile	13	34	135	<1	22	6
Total Regional (On-Site and Off-Site) Emissions	**24**	**35**	**158**	**<1**	**22**	**6**
SCAQMD Numeric Indicators	55	55	550	150	150	55
Over (Under)	(31)	(20)	(392)	(150)	(128)	(49)
Exceeds Indicator?	No	No	No	No	No	No
Full Buildout - 2035						
Area	24	<1	23	<1	<1	<1
Energy	1	6	4	<1	<1	<1
Mobile [c]	20	42	108	1	66	18
Total Regional (On-Site and Off-Site) Emissions	**44**	**48**	**135**	**1**	**66**	**18**
SCAQMD Numeric Indicators	55	55	550	150	150	55
Over (Under)	(11)	(7)	(415)	(150)	(84)	(37)
Exceeds Indicator?	No	No	No	No	No	No

[a] Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be one unit more or less than actual values. Exact values (i.e., non-rounded) are provided in the CalEEMod model printout sheets and/or calculation worksheets that are provided in Appendix A-1.

[b] PM10 and PM2.5 emissions estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression.

[c] Mobile emissions for 2035 were calculated separately using EMFAC2014, based on daily vehicle miles traveled and emission factors for each pollutant. See Mobile Emissions Calculations sheet in Appendix A-1 for more details.

Source: ESA-PCR, 2016

(3) Cumulative Pollutant Increases

Threshold AQ-3: A significant impact would occur if the Project would 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).

Impact Statement AQ-3: Implementation of the Project could result in a cumulatively considerable net increase of a criteria pollutant for which the region is non-attainment under applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). As the Project would have maximum daily construction emissions that exceed the thresholds for NOx, implementation of the Pepper Avenue Specific Plan could contribute incrementally to regional ozone and NO_2 and would therefore result in potentially significant impacts.

However, implementation of the prescribed mitigation measure would reduce the Project's construction-related impacts to a less than significant level, thereby precluding the Project from resulting in cumulatively considerable criteria pollutant increases in this regard during construction activities. Operation of the Project would result in emissions that would not cumulatively contribute to any criteria pollutant for which the region is non-attainment, therefore resulting in less than significant cumulative operational impacts.

The Project Site is located within the Basin, which is considered the cumulative study area for air quality. As the Basin is currently in nonattainment for ozone, PM_{10}, and $PM_{2.5}$, cumulative development consisting of the Project along with other reasonably foreseeable future projects in the Basin as a whole could violate an air quality standard or contribute to an existing or projected air quality violation. However, based on SCAQMD's cumulative air quality impact methodology, SCAQMD recommends that if an individual project results in air emissions of criteria pollutants (ROG, CO, NOx, SOx, PM_{10}, and $PM_{2.5}$) that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the Project region is in nonattainment under an applicable federal or state ambient air quality standard.

As discussed under Impact AQ-2, the total peak day construction emissions generated from the Project under both Scenarios 1 and 2 would not exceed any of SCAQMD's regional significance thresholds with implementation of Mitigation Measure AQ-1. In addition, with respect to operational emissions, the Project would not exceed any SCAQMD regional daily thresholds for criteria air pollutants under Scenarios 1 and 2. Therefore, because the Project's construction-period and operation-period impacts would be less than significant, the Project would not result in a significant cumulative impact, when considered with other past, present and reasonably foreseeable projects.

As discussed under Impact AQ-4 below, the daily emissions generated onsite by the Project's worst-case construction scenario in Scenario 1 and Scenario 2 would not exceed the SCAQMD LSTs for NOx, CO or PM_{10}; however, the Project would exceed the LST for $PM_{2.5}$. Because the localized emissions of $PM_{2.5}$could exceed SCAQMD's LST on certain peak construction days, this impact would be potentially significant and would require mitigation. With implementation of Mitigation Measure AQ-1, the Project would require the use of EPA Rated Tier 4 (or equivalent) engines in order to reduce $PM_{2.5}$ emissions. In the event that all construction equipment cannot meet the Tier 4 engine certification, the applicant can demonstrate through future study that reductions in the daily $PM_{2.5}$ emissions can be achieved by other technologies/strategies so that emissions from all concurrent construction would not exceed applicable SCAQMD daily emission thresholds. Alternative measures may include, but would not be limited to: reduction in the number and/or horsepower rating of construction equipment, limiting the number of daily construction haul truck trips to and from the Specific Plan area, using cleaner vehicle fuel, and/or limiting the number of individual construction project phases occurring simultaneously (see Section 4, Mitigation Measure, for full description of mitigation measure). The maximum daily localized $PM_{2.5}$ emissions generated during Project construction would be reduced to below SCAQMD's LST. Therefore, with implementation of Mitigation Measure AQ-1, the localized air quality impacts associated with mitigated construction emissions would be reduced to a less than significant level. In addition, Project operational emissions would

not exceed any of SCAQMD's LSTs for any criteria pollutants Therefore, the Project would not expose sensitive receptors in the Project area to localized air quality impacts from criteria pollutants and TACs, and would result in no cumulatively considerable impact.

As discussed under Impact AQ-5 below, the Project would not create any objectionable odors that would affect a substantial number of people. Therefore, the Project would result in no cumulative impact regarding odors.

(4) Sensitive Receptors

Threshold AQ-4: A significant impact would occur if the Project would expose sensitive receptors to substantial pollutant concentrations.

Impact Statement AQ-4: Implementation of the Project could expose sensitive receptors to substantial pollutant concentrations during Project construction activities. Localized on-site construction emissions resulting from construction of Scenario 1 or Scenario 2 of the Project would exceed the SCAQMD localized significance threshold for $PM_{2.5}$, without mitigation resulting in potentially significant construction impacts. Localized emissions resulting from operation of the Project would not exceed any SCAQMD localized significance thresholds, with impacts being less than significant. In addition, implementation of the Project would not expose off-site sensitive receptors to significant levels of toxic air contaminants or contribute to the formation of CO hotspots, resulting in less than significant impacts to sensitive receptors. Implementation of the prescribed mitigation would reduce the Project's potentially significant localized construction-related impacts to a less than significant level.

Construction and operation of the Project could potentially expose sensitive receptors in the Project area to localized air quality impacts from criteria pollutants and TACs. Separate discussions are provided below analyzing the potential for sensitive receptors to be exposed to these pollutant sources.

Carbon Monoxide Hotspots

Localized areas where ambient concentrations exceed state and/or federal standards are termed CO hotspots. Emissions of CO are produced in greatest quantities from motor vehicle combustion and are usually concentrated at or near ground level because they do not readily disperse into the atmosphere, particularly under cool, stable (i.e., low or no wind) atmospheric conditions. As shown in Table 4.B-1, measured CO levels in the Project area are substantially below the federal and state standards. Maximum CO levels in recent years are 4.1 ppm (one-hour average) and 2.4 ppm (eight-hour average) compared to the thresholds of 20 ppm (one-hour average) and 9.0 ppm (eight-hour average). Carbon monoxide decreased dramatically in the Basin with the introduction of the automobile catalytic converter in 1975. No exceedances of CO have been recorded at monitoring stations in the Basin for some time and the Basin is currently designated as a CO attainment area for both the CAAQS and NAAQS.

The SCAQMD conducted CO modeling for the 2003 AQMP for the four worst-case intersections in the Basin: (a) Wilshire Boulevard and Veteran Avenue; (b) Sunset Boulevard and Highland Avenue; (c) La Cienega Boulevard and Century Boulevard; (d) Long Beach Boulevard and Imperial Highway. In the 2003 AQMP, the SCAQMD notes that the intersection of Wilshire Boulevard and Veteran Avenue is the most congested intersection in Los Angeles County, with an average daily traffic volume of about 100,000 vehicles per day.[1] This intersection is located near the on- and off-ramps to Interstate 405 in West Los Angeles. The evidence provided in Table 4-10 of Appendix V of the 2003 AQMP shows that the peak modeled CO concentration due to vehicle emissions at these four intersections was 4.6 ppm (one-hour average) and 3.2 (eight-hour average) at Wilshire Boulevard and Veteran Avenue.[2] When added to the existing background CO concentrations, the screening values would be 8.7 ppm (one-hour average) and 5.6 ppm (eight-hour average).

None of the intersections in the Project area have peak hour traffic volumes that exceed those at the worst-case intersections modeled in the 2003 AQMP nor do they have any geometric qualities that would result in higher concentrations than the intersections modeled by the SCAQMD. As stated above, Wilshire Boulevard and Veteran Avenue is the most congested intersection in Los Angeles County with daily traffic volumes of about 100,000 per day. The Project Traffic Impact Analysis shows that traffic volumes for Project intersections in the Project area would be approximately 42,251 vehicles per day for the first year of operations and approximately 73,658 vehicles per day for the long-range full buildout of operations (Urban Crossroads, 2016). As a result, CO concentrations are expected to be less than 8.7 ppm (1-hour average) and 5.6 ppm (8-hour average), which would not exceed the thresholds. Thus, this comparison provides evidence that the Project would not contribute to the formation of CO hotspots and no further CO analysis is required. Therefore, the Project would result in less than significant impacts with respect to CO hotspots.

Criteria Air Pollutants – Localized Construction Air Quality Impacts

As previously discussed, the SCAQMD recommends the evaluation of localized air quality impacts to sensitive receptors in the immediate vicinity of the Project Site as a result of construction and operational activities. The thresholds are based on standards established by the SCAQMD in the LST Methodology. The LSTs are compared to construction emissions that occur on the Project Site. Based on the *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds* from SCAQMD, the daily on-site construction emissions generated by the Project were evaluated against SCAQMD's LSTs for a 2-acre site under Scenario 1 and a 5-acre site under Scenario 2 to determine whether the emissions would cause or contribute to adverse localized air quality impacts (see Table 4.B-5 and Appendix A-1 of the *Air Quality Technical Report* for CalEEMod Construction Model Inputs summary).

Construction activity is limited to the areas of Community Commercial, Business Park, and Residential land uses on the Project Site. No construction is anticipated to occur on the Open

1 South Coast Air Quality Management District, 2003 Air Quality Management Plan, Appendix V: Modeling and Attainment Demonstrations, (2003) V-4-24.

2 The eight-hour average is based on a 0.7 persistence factor, as recommended by the SCAQMD.

Space or Public Facility land uses. Therefore, the nearest sensitive receptor to any area of construction is the semi-rural residence located approximately 200 feet east of the Project Site, directly across the Union Pacific railroad. Since the mass rate look-up tables provided by SCAQMD only provides LSTs at receptor distances of 82, 164, 328, 656, and 1,640 feet, the LSTs for a receptor distance of 164 feet are used to evaluate the potential localized air quality impacts associated with the Project's peak day construction emissions. **Table 4.B-12** and **Table 4.B-13** identify the daily localized on-site emissions that are estimated to occur during the Project's worst-case construction scenario for Scenario 1 and Scenario 2, respectively.

TABLE 4.B-12
SCENARIO 1 LOCALIZED DAILY CONSTRUCTION EMISSIONS

	Estimated Maximum Daily On-Site Emissions (lbs/day)			
Construction Phase	**NO_X**	**CO**	**PM_{10}[a]**	**$PM_{2.5}$[a]**
Site Preparation	55	41	10	7
Grading	38	26	5	3
Building Construction	29	19	2	2
Architectural Coating	2	2	<1	<1
Paving	20	15	1	1
Situation A – Maximum Localized Emissions [b]	**86**	**62**	**13**	**10**
Situation B – Maximum Localized Emissions [c]	**106**	**77**	**14**	**11**
Localized Significance Threshold [d]	*200*	*1,463*	*22*	*6*
Significant Impact?	No	No	No	**Yes**
Situation A – Mitigated Localized Emissions [b, e]	**26**	**50**	**8**	**0**
Situation B – Mitigated Localized Emissions [c, e]	**36**	**67**	**8**	**0**
Localized Significance Threshold [d]	*200*	*1,463*	*22*	*6*
Significant Impact?	No	No	No	No

[a] Emissions account for implementation of dust control measures as required by SCAQMD Rule 403—Fugitive Dust.

[b] Situation A sums maximum daily emissions from the phases: Building Construction, Architectural Coating, and Site Preparation or Grading (which ever has a greater emissions value of the two)

[c] Situation B sums maximum daily emissions from the phases: Building Construction, Architectural Coating, Paving and Site Preparation or Grading (which ever has a greater emissions value of the two)

[d] LSTs for a 2-acre site in SRA 34 at a receptor distance of 164 feet.

[e] Emissions calculated with implementation of Mitigation Measure AQ-1 (use of Tier IV equipment or equivalent reduction). Refer to Tables 4.B-8 and 4.B-9 for complete emissions output calculated with incorporation of mitigated construction using CalEEMod.

Source: ESA-PCR CalEEMod Modeling June 2016

TABLE 4.B-13
SCENARIO 2 LOCALIZED DAILY CONSTRUCTION EMISSIONS

	Estimated Maximum Daily On-Site Emissions (lbs/day)			
Construction Phase	**NO_X**	**CO**	**PM_{10}[a]**	**$PM_{2.5}$[a]**
Site Preparation	55	41	10	7
Grading	77	52	10	7
Building Construction	57	37	4	4
Architectural Coating	4	4	<1	<1
Paving	41	29	2	2
Situation A – Maximum Localized Emissions [b, e]	**138**	**93**	**13**	**10**
Situation B – Maximum Localized Emissions [c, e]	**179**	**122**	**16**	**12**
Localized Significance Threshold [d]	*200*	*1,463*	*44*	*10*
Significant Impact?	No	No	No	**Yes**
Situation A – Mitigated Localized Emissions [b]	**53**	**105**	**11**	**0**
Situation B – Mitigated Localized Emissions [c]	**73**	**140**	**11**	**0**
Localized Significance Threshold [d]	*200*	*1,463*	*44*	*10*
Significant Impact?	No	No	No	No

[a] Emissions account for implementation of dust control measures as required by SCAQMD Rule 403—Fugitive Dust.
[b] Situation A sums maximum daily emissions from the phases: Building Construction, Architectural Coating, and Site Preparation or Grading (which ever has a greater emissions value of the two)
[c] Situation B sums maximum daily emissions from the phases: Building Construction, Architectural Coating, Paving and Site Preparation or Grading (which ever has a greater emissions value of the two)
[d] LSTs for a 5-acre site in SRA 34 at a receptor distance of 164 feet.
[e] Emissions calculated with implementation of Mitigation Measure AQ-1. Refer to Tables 4.B-8 and 4.B-9 for complete emissions output calculated with incorporation of mitigated construction using CalEEMod.

Source: ESA-PCR CalEEMod Modeling June 2016

The daily emissions generated onsite by the Project's worst-case construction scenario in Scenario 1 and Scenario 2 would not exceed the SCAQMD LSTs for NOx, CO or PM_{10}; however, the Project would exceed the LST for $PM_{2.5}$. Because the localized emissions of $PM_{2.5}$could exceed SCAQMD's LST on certain peak construction days, this impact would be potentially significant and would require mitigation.

Implementation of Mitigation Measure AQ-1 would require the use of EPA Rated Tier 4 (or equivalent) engines in order to reduce $PM_{2.5}$ emissions. The use of Tier 4 (or equivalent) engines is applied to all equipment in each phase in order to be reduced to below a significant level, as shown in the complete mitigated outputs in Table 4.B-8 and Table 4.B-9 above. In the event that all construction equipment cannot meet the Tier 4 engine certification, the applicant can demonstrate through future study that reductions in the daily $PM_{2.5}$ emissions can be achieved by other technologies/strategies so that emissions from all concurrent construction would not exceed applicable SCAQMD daily emission thresholds. Alternative measures may include, but would not be limited to: reduction in the number and/or horsepower rating of construction equipment, limiting the number of daily construction haul truck trips to and from the Specific Plan area,

using cleaner vehicle fuel, and/or limiting the number of individual construction project phases occurring simultaneously (see Section 4, Mitigation Measure, for full description of mitigation measure). The mitigated localized construction emissions for Scenario 1 and Scenario 2 that would result from implementation of Mitigation Measure AQ-1 are also shown below in Table 4.B-12 and Table 4.B-13, respectively.

As shown, with implementation of mitigation, the maximum daily localized $PM_{2.5}$ emissions generated during Project construction would be reduced to below SCAQMD's LST. Therefore, with implementation of Mitigation Measure AQ-1, the localized air quality impacts associated with mitigated construction emissions would be reduced to a less than significant level.

Criteria Air Pollutants – Localized Operational Air Quality Impacts

During Project operations, the daily amount of localized pollutant emissions generated onsite by the Project would not be substantial. First year and full buildout operational emissions for Scenario 1 and Scenario 2 are shown in **Table 4.B-14** and **Table 4.B-15**. As shown, the Project's total net operational-related emissions generated onsite would not exceed SCAQMD's applicable operational LSTs. Thus, localized air quality impacts during Project operations would be less than significant and no mitigation would be required.

TABLE 4.B-14
SCENARIO 1 LOCALIZED DAILY OPERATIONAL EMISSIONS

	Estimated Emissions (lbs./day)			
Localized Emissions	**NO_X**	**CO**	**PM_{10} [a]**	**$PM_{2.5}$ [a]**
First Year Operations - 2017				
Area	0.00	0.01	0.00	0.00
Energy	0.50	0.00	0.04	0.04
Mobile [b]	0.64	2.67	0.40	0.11
Total Localized (On-Site) Emissions	**1.14**	**2.69**	**0.44**	**0.15**
Localized Significance Threshold [c]	*302*	*2,396*	*6*	*2*
Exceeds Indicator?	No	No	No	No
Full Buildout - 2035				
Area	0.00	0.12	0.00	0.00
Energy	5.01	4.21	0.38	0.38
Mobile [b]	2.05	6.31	0.60	0.17
Total Localized (On-Site) Emissions	**7.06**	**10.63**	**0.99**	**0.55**
Localized Significance Threshold [c]	*302*	*2,396*	*6*	*2*
Exceeds Indicator?	No	No	No	No

[a] Emissions account for implementation of dust control measures as required by SCAQMD Rule 403—Fugitive Dust.

[b] Due to the size of the site and type of development, a portion of the mobile emissions would occur onsite. As a conservative analysis on-site mobile emissions are anticipated to occur from an average 0.5-mile one-way travel distance. Emissions from on-site travel were based on the percentage difference between the 0.5-mile on-site travel and the average trip distance for the Project Site (i.e, 4.47 percent of the mobile source emissions are estimated to occur within the site boundaries).

[c] LSTs for a 2-acre site in SRA 34 at a receptor distance of 164 feet.

Source: ESA-PCR CalEEMod Modeling June 2016

TABLE 4.B-15
SCENARIO 2 LOCALIZED DAILY OPERATIONAL EMISSIONS

	Estimated Emissions (lbs./day)			
Localized Emissions	**NO_X**	**CO**	**PM_{10} [a]**	**$PM_{2.5}$ [a]**
First Year Operations - 2017				
Area	0.27	22.96	0.49	0.49
Energy	1.16	0.70	0.09	0.09
Mobile [b]	1.55	6.11	1.02	0.29
Total Localized (On-Site) Emissions	**2.97**	**29.77**	**1.60**	**0.87**
Localized Significance Threshold [c]	*302*	*2,396*	*11*	*3*
Exceeds Indicator?	No	No	No	No
Full Buildout - 2035				
Area	0.26	22.76	0.50	0.49
Energy	5.66	4.48	0.43	0.43
Mobile [b]	2.41	7.39	3.60	0.98
Total Localized (On-Site) Emissions	**8.33**	**34.63**	**4.52**	**1.90**
Localized Significance Threshold [c]	*302*	*2,396*	*11*	*3*
Exceeds Indicator?	No	No	No	No

[a] Emissions account for implementation of dust control measures as required by SCAQMD Rule 403—Fugitive Dust.

[b] Due to the size of the site and type of development, a portion of the mobile emissions would occur onsite. As a conservative analysis on-site mobile emissions are anticipated to occur from an average 0.5-mile one-way travel distance. Emissions from on-site travel were based on the percentage difference between the 0.5-mile on-site travel and the average trip distance for the Project Site (i.e, 4.53 percent of the mobile source emissions are estimated to occur within the site boundaries).

[c] LSTs for a 5-acre site in SRA 34 at a receptor distance of 656 feet.

Source: ESA-PCR CalEEMod Modeling June 2016

Toxic Air Contaminants – Localized Construction Air Quality Impacts

Project construction would result in short-term emissions of diesel PM, which is a TAC. Diesel PM poses a carcinogenic health risk that is measured using an exposure period of 70 years. The exhaust of off-road heavy-duty diesel equipment would emit diesel PM during demolition, site preparation (e.g., clearing); site grading and excavation; paving; installation of utilities, materials transport and handling; building construction; and other miscellaneous activities. SCAQMD has not adopted a methodology for analyzing such impacts and has not recommended that HRAs be completed for construction-related emissions of TACs.

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., the potential exposure to TACs to be compared to applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the maximally exposed individual. Thus, the risks estimated for a maximally exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment (OEHHA), carcinogenic HRAs, which determine the exposure of sensitive receptors to TAC emissions,

should be based on a 70-year exposure period; however, such assessments should be limited to the period or duration of activities associated with the Project.

The initial construction period for the Project is anticipated to last for approximately one year, and the entire build-out construction period could last for up to approximately 17 years; thus, construction would be much less than the 70-year period used for risk determination. Because off-road heavy-duty diesel equipment would be used only for short time periods, Project construction is not anticipated to expose sensitive receptors to substantial emissions of TACs, especially given the distance between the Project Site and the nearest sensitive receptors. This impact would be less than significant.

Toxic Air Contaminants – Localized Operational Impacts to Off-Site Populations

The primary sources of potential air toxics associated with Project operations include diesel particulate matter from delivery trucks (e.g., truck traffic on local streets and on-site truck idling). The SCAQMD recommends that HRAs be conducted for substantial sources of diesel particulate matter (e.g., truck stops and warehouse distribution facilities) and has provided guidance for analyzing mobile source diesel emissions (SCAQMD, 2002). In addition, the nearest sensitive receptors to areas of construction are the single-family residences located approximately 800 feet southwest of the Project Site, directly across Shirley Bright Road.

The CARB siting guidelines define a warehouse as having more than 100 truck trips or 40 refrigerated truck trips per day. As discussed in Section 2, *Project Description* and the Project Traffic Impact Analysis (Urban Crossroads, 2016), no future heavy-industrial development is proposed as part of the Pepper Avenue Specific Plan. In addition, any other future industrial uses would likely be linked to and serve more of a supporting role to the office land uses. Based on this supportive role, the industrial uses would likely be below average truck generators. Thus, no Project components are anticipated to generate the level of truck trips expected for a warehouse. Therefore, the Project is not considered to be a substantial source of diesel particulate matter warranting a refined health risk assessment (HRA).

Toxic Air Contaminants – Operational Impacts to On-Site Populations

As discussed previously, CARB Land Use Guidelines advises avoiding siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles per day. The Guidelines also advises to avoid siting sensitive uses within 1,000 feet of a major rail yard. For projects which would place sensitive uses (residential, school) near a freeway or rail yard, the SCAQMD recommends that the HRA be performed consistent with CARB and OEHHA guidelines. The HRA is intended to allow planners and project applicants to determine whether sensitive uses would be exposed to significant levels of freeway TACs.

Because the Specific Plan area may locate sensitive uses near the SR-210 Freeway and the BNSF Railroad, an HRA was prepared for the Project. TACs from the freeway and rail line are generated through combustion of fuel (diesel) which affects ambient air throughout the region. Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level. Diesel exhaust is the predominant TAC in urban air and is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average).

The Project Site vicinity is subject to elevated TACs due to the proximity of the 210 Freeway,BNSF Railroad and other TAC sources. As disclosed in the Multiple Air Toxics Exposure Study IV (MATES IV), Model Estimated Carcinogenic Risk, the existing carcinogenic risk for the Project Site area spans portions of two MATES IV grid spaces with values of approximately 735 and 761 incidents per 1 million. (SCAQMD, 2015a) By comparison, the carcinogenic risk from air toxics in the entire Basin, based on the average concentrations at fixed monitoring sites, is about 1,023 incidents per 1 million. This risk refers to the expected number of additional cancers in a population of 1 million individuals that are exposed over a 70-year lifetime. Using the MATES IV methodology, about 90 percent of the risk is attributed to emissions associated with mobile sources, and about 10 percent of the risk is attributed to toxics emitted from stationary sources, which include industries, and businesses such as dry cleaners and chrome plating operations. (SCAQMD, 2015b)

For the above reasons, for purposes of disclosure an HRA was prepared for the Project and the findings are summarized in the discussion below.

Table 4.B-16, *Summary of Carcinogenic Risks for On-Site Sensitive Receptors*, summarizes the carcinogenic risk for representative receptors located throughout the Site. For carcinogenic exposures, the cancer risk from DPM emissions for the Project Site resulted in a maximum carcinogenic risk of approximately 217 per one million for the 30-year residential exposure scenario. This scenario is based on a highly conservative 30-year, 24-hours-per-day, seven-days-per-week exposure. The 30-year lifetime exposure is a default assumption under OEHHA guidelines which takes into account early life (infant and children) exposure. Cancer risk for on-site receptors which are further away from the railway would drop to approximately 50 per 1 million. It should be noted that the calculated cancer risk assumes no mitigation such as mechanical filtration and exposure with windows open. Heating Ventilation and Air Conditioning (HVAC) typically requires mechanical filtration with a Minimum Efficiency Reporting Value (MERV) of 8 or higher. This would reduce typical indoor PM_{10} concentrations up to 70 percent. Therefore, actual cancer risk impacts to on-site residents would be lower than those reported above.

TABLE 4.B-16
SUMMARY OF CARCINOGENIC RISKS FOR ON-SITE SENSITIVE RECEPTORS

Risk Scenario	Carcinogenic Risk Per 1 Million*
Maximum Exposed Individual (MEI) (closest to railway)	217
Middle of the Site	96
Northwest Edge of the Site	50

See calculation worksheets presented in Appendix A-1.
* The significance threshold is 10 per million.

Source: ESA PCR, 2016

The HRA worksheets (provided in Appendix A-1) provide a detailed breakdown of these calculations. Although cancer risk values exceed the SCAQMD significance threshold of 10 per one million, additional mitigation measures may be employed for specific projects located within 500 feet of the freeway or 1,000 feet of the railway.

Additional filtration such as MERV 13 or higher would reduce DPM concentrations at sensitive receptors by as much as 90 percent. During final design of specific projects, residential uses and air intake vents could be placed farther away from the freeway and rail line to limit exposure to DPM. Inoperable windows may also be implemented into the design to limit exposure to DPM.

In summary, the Project Site's worst-case location would be exposed to cancer risk in excess of the SCAQMD significance threshold of 10 per 1 million. However, additional measures implemented at the time of Project design may be available to reduce health risk impacts.

The results of this HRA are for informational purposes and provides information to the City and applicant regarding health impacts and allow the applicant to make an informed decision about site planning and design.

(5) Exposure of Objectionable Odors

Threshold AQ-5: A significant impact would occur if the Project would create objectionable odors affecting a substantial number of people.

Impact Statement AQ-5: Implementation of the Specific Plan would not create objectionable odors affecting a substantial number of people. Future development pursuant to the Specific Plan consists of business park, residential and commercial uses that are not expected to be a source of off-site odor complaints. In addition, the Project is not located near any sources of odors identified by the SCAQMD handbook. Therefore, implementation of the Project would have a less than significant impact regarding objectionable odors.

Potential sources that may emit odors during construction activities include the use of architectural coatings and solvents, and exhaust from diesel equipment and diesel-powered on- and off-road equipment. SCAQMD Rule 1113 limits the amount of volatile organic compounds from architectural coatings and solvents. During construction of the Project, such odors would be a temporary source of nuisance to adjacent uses, but would not affect a substantial number of people. As odors associated with Project construction would be temporary and intermittent in nature, the odors would not be considered to be a significant environmental impact. Therefore, impacts associated with objectionable odors would be less than significant.

According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed Pepper Avenue Specific Plan includes development of commercial, business park, retail and residential uses, and therefore does not include any uses identified by the SCAQMD as being

associated with odors. In addition, the Project is not located near any sources of odors identified by the SCAQMD handbook. Therefore, implementation of the Project would have a less than significant impact.

4. Mitigation Measures

The following mitigation measure is intended to reduce the proposed Pepper Avenue Specific Plan's air quality impacts to the extent feasible during construction.

> **Mitigation Measure AQ-1:** All off-road construction equipment with a horsepower (HP) greater than 50 shall be required to have USEPA certified Tier 4 interim engines or engines that are certified to meet or exceed the emission ratings for USEPA Tier 4 engines. In the event that all construction equipment cannot meet the Tier 4 engine certification, the applicant must demonstrate through future study that reductions in the daily NOx and $PM_{2.5}$ emissions can be achieved by other technologies/strategies so that emissions from all concurrent construction would not exceed applicable SCAQMD daily emission thresholds. Alternative measures may include, but would not be limited to: reduction in the number and/or horsepower rating of construction equipment, limiting the number of daily construction haul truck trips to and from the Specific Plan area, using cleaner vehicle fuel, and/or limiting the number of individual construction project phases occurring simultaneously.

5. Level of Significance After Mitigation

All air quality impacts associated with the Project, except Impact Statement AQ-2 and AQ-4, would be considered less than significant without mitigation. Under Threshold AQ-2, the Project would result in a potentially significant impact regarding the violation of an air quality standard during construction; and for Threshold AQ-4, the Project would result in a potentially significant impact regarding the exposure of substantial pollutant concentrations to sensitive receptors during construction. Emissions of NOx and $PM_{2.5}$ during construction of the Project would exceed the SCAQMD's daily regional and localized significance thresholds, respectively; however, implementation of Mitigation Measure AQ-1 would require construction equipment engines to meet or exceed the emission ratings for USEPA Tier 4 engines, or require the applicant to demonstrate through future study that reductions in the daily NOx and $PM_{2.5}$ emissions can be achieved by other technologies/strategies. With implementation of this mitigation measure during construction, the Project's NOx and $PM_{2.5}$ emissions would be reduced to below SCAQMD's daily significance thresholds, thus resulting in a less than significant impact regarding the violation of an air quality standard and pollutant exposure to sensitive receptors.

6. References

CARB, 2016a. *Summaries of Air Quality Data, 2013-2015*. http://www.arb.ca.gov/aqmis2/aqdselect.php; Accessed June 2, 2016.

_____. 2016b. *Ambient Air Quality Standards Table*. Available at: http://www.arb.ca.gov/desig/desig.htm. Accessed June 2, 2016.

_____. 2013a. *The California Almanac of Emissions and Air Quality*. Available at: http://www.arb.ca.gov/aqd/almanac/almanac13/almanac13.htm. Accessed June 2, 2016.

_____. 2015. Area Designation Maps/State and National. Updated December 2015. Available: www.arb.ca.gov/desig/adm/adm.htm/. Accessed June 2, 2016.

_____. 2001. *ARB Fact Sheet: Air Pollution Sources, Effects and Control,* http://www.arb.ca.gov/research/health/fs/fs2/fs2.htm, page last updated December 2009.

City of Rialto, 2010. *Rialto General Plan*. Adopted December 2010. Available at: http://www.rialtoca.gov/documents/downloads/General_Plan_Update_2010.pdf.

PCR, 2016. Draft Initial Study – Pepper Avenue Specific Plan. January 2016.

SCAG, 2012. *Regional Transportation Plan 2012-2035*. Growth Forecast Appendix. Adopted April 2012. Available at: http://rtpscs.scag.ca.gov/Documents/2012/final/SR/2012fRTP_GrowthForecast.pdf. Accessed June 2, 2016.

SCAQMD, 2015. SCAQMD Air Quality Significance Thresholds. Revised March 2015. Available at http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook. Accessed June 2, 2016.

_____, 2014. *Historical Data by Year*. http://www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year

_____, 2013. *Air Quality Management Plan*. Final 2012. Published February 2013.

_____, 2009. Appendix C – Mass Rate LST Look-up Tables. Revised October 21, 2009. Available at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf?sfvrsn=2.

_____, 2008. *Final Localized Significance Threshold Methodology*. Published June 2003. Revised July 2008. Available at http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds. Accessed June 2, 2016.

_____, 2006. *Final –Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds* Published October 2006. Available at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/pm-2-5-significance-thresholds-and-calculation-methodology. Accessed June 2, 2016.

_____, 2005. *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*. Published May 2005. Available at: http://www.aqmd.gov/home/library/documents-support-material/planning-guidance/guidance-document. Accessed June 2, 2016.

_____, 2002. Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions. December 2002.

Whiteman, 2016. *Pepper Avenue Specific Plan – Traffic Impact Analysis*. Prepared by Marlie Whiteman, P.E; Urban Crossroads. Prepared June 2, 2015. Revised January 13, 2016.

C. Biological Resources

1. INTRODUCTION

This section describes existing biological resources that occur or have the potential to occur on the Project Site or in the Site vicinity. In addition, a description of applicable regulations is provided. The analysis evaluates potential impacts to biological resources that could occur with implementation of the Project and is based on a Biological Resources Assessment (BRA) prepared by PCR Services Corporation (PCR) (currently ESA PCR) (PCR, 2016), provided in Appendix C of this Draft EIR.

2. ENVIRONMENTAL SETTING

a. Regulatory Framework

(1) Federal Regulations

(a) Endangered Species Act

The federal Endangered Species Act (ESA) protects plants and wildlife that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS). ESA Section 9 prohibits the taking of endangered wildlife, where taking is defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 Code of Federal Regulations [CFR] 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land, as well as removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law. Under ESA Section 7, agencies are required to consult with the USFWS or NMFS if their actions, including permit approvals or funding, could adversely affect an endangered species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS or NMFS may issue an incidental take statement allowing take of the species that is incidental to another authorized activity, provided the action will not jeopardize the continued existence of the species. In cases where the federal agency determines its action may affect, but would be unlikely to adversely affect, a federally listed species, the agency informally consults with the USFWS and/or NMFS. This informal consultation typically involves incorporating measures intended to ensure effects would not be adverse. Concurrence from the USFWS and/or NMFS concludes the informal process. Without such concurrence, the federal agency formally consults to ensure full compliance with the ESA.

(b) Clean Water Act

The federal Water Pollution Control Act Amendments of 1972 (33 United States Code [USC] 1251–1376), as amended by the Water Quality Act of 1987, and better known as the federal Clean Water Act (CWA), is the major federal legislation governing water quality. The purpose of the federal CWA is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Discharges into waters of the United States are regulated under CWA Section

404. Waters of the United States include: 1) all navigable waters (including all waters subject to the ebb and flow of the tide); 2) all interstate waters and wetlands; 3) all other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, or natural ponds; 4) all impoundments of waters mentioned above; 5) all tributaries to waters mentioned above; 6) the territorial seas; and 7) all wetlands adjacent to waters mentioned above. Important applicable sections of the CWA are discussed below:

- Section 303 requires states to develop water quality standards for inland surface and ocean waters and submit to the U.S. Environmental Protection Agency (EPA) for approval. Under Section 303(d), the state is required to list waters that do not meet water quality standards and to develop action plans, called Total Maximum Daily Loads (TMDLs), to improve water quality.
- Section 304 provides for water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for any federal permit that proposes an activity that may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of the CWA. Certification is provided by the respective Regional Water Quality Control Board (RWQCB). A Section 401 permit from the Santa Ana RWQCB would be required for the Project if a Section 404 permit were required.
- Section 402 establishes the National Pollutant Discharge Elimination System (NPDES), a permitting system for the discharge of any pollutant (except for dredge or fill material) into waters of the United States. The NPDES program is administered by the RWQCB. Conformance with Section 402 is typically addressed in conjunction with water quality certification under Section 401.
- Section 404 provides for issuance of dredge/fill permits by the United States Army Corps of Engineers (USACE). Permits typically include conditions to minimize impacts on water quality. Common conditions include: 1) USACE review and approval of sediment quality analysis before dredging, 2) a detailed pre- and post-construction monitoring plan that includes disposal site monitoring, and 3) requiring compensation for loss of waters of the United States. The areas of the Project Site that occur below mean higher high water (MHHW) would be subject to regulation under Section 404.

(c) Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) protects individuals as well as any part, nest, or eggs of any bird listed as migratory. In addition to MBTA, the Bald and Golden Eagle Protection Act protects bald and golden eagles as well as any part, nest, or eggs. Furthermore, any impacts to USACE and RWQCB jurisdictional waters would require permitting pursuant to Sections 404 and 401 of the CWA, respectively. In practice, Federal permits issued for activities that potentially impact migratory birds, including bald and golden eagles, typically have conditions that require pre-disturbance surveys for nesting birds. In the event nesting is observed, a buffer area with a specified radius must be established, within which no disturbance or intrusion is allowed until the young have fledged and left the nest, or it has been determined that the nest has failed. If not otherwise specified in the permit, the size of the buffer area varies with species and local circumstances (e.g., presence of busy roads, intervening topography, etc.), and is based on the professional judgment of a monitoring biologist. A list of migratory bird species protected under the MBTA is published by USFWS.

(2) State Regulations

(a) California Endangered Species Act

The California Endangered Species Act (CESA) authorizes the California Fish and Game Commission (Commission) to designate endangered, threatened, and rare species and to regulate the taking of these species (California Fish and Game Code [FGC] Sections 2050–2098). The CESA defines endangered species as those whose continued existence in California is jeopardized. State-listed threatened species are those not presently facing extinction, but that may become endangered in the foreseeable future. FGC Section 2080 prohibits the taking of state-listed plants and animals. The California Department of Fish and Wildlife (CDFW) [1] also designates fully protected or protected species as those that may not be taken or possessed without a permit from the Commission and/or CDFW. Species designated as fully protected or protected may or may not be listed as endangered or threatened. When a species is both state- and federally listed, an expedited request for consistency with the USFWS biological opinion may be issued through a request for Section 2080.1 consistency determination. If CDFW determines that the federal statement/permit is not consistent with CESA, an application for an incidental take permit under section 2081 subdivision (b) of the Fish and Game Code must be processed.

(b) California Fish and Game Code

The FGC is implemented by the Commission, as authorized by Article IV, Section 20, of the Constitution of the State of California. FGC Sections 3503, 3503.5, 3505, 3800, and 3801.6 protect all native birds, birds of prey, and nongame birds, including their eggs and nests, that are not already listed as fully protected and that occur naturally within the state. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (e.g., hawks, owls, eagles, and falcons), including their nests or eggs. The CDFW is the state agency that manages native fish, wildlife, plant species, and natural communities for their ecological value and their benefits to people.

(c) 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 California. CNPS has compiled an inventory comprised of the information focusing on geographic distribution and qualitative characterization of rare, threatened, and endangered vascular plant species of California. The list has served as a potential candidate list for listing as Threatened and Endangered by CDFW. CNPS has developed five categories of rarity, referred to as California Rare Plant Ranks (CRPRs), of which CRPRs 1A, 1B, 2A, and 2B are considered particularly sensitive:

- CRPR 1A Presumed Extirpated in California and either Rare or Extinct elsewhere.
- CRPR 1B Plants Rare, Threatened, or Endangered in California and elsewhere.
- CRPR 2A Presumed Extirpated in California, but more common elsewhere.

[1] As of January 1, 2013, the former California Department of Fish and Game name has been changed to the California Department of Fish and Wildlife.

- CRPR 2B Plants Rare, Threatened, or Endangered in California, but more common elsewhere.
- CRPR 3 Plants about which we need more information – a review list.
- CRPR 4 Plants of limited distribution – a watch list.

The CNPS appends CRPR categorizations with "threat ranks" that parallel the ranks used by the California Natural Diversity Database (CNDDB), which is a CDFW species account database, and are added as a decimal code after the CRPR (e.g., CRPR 1B.1). The threat codes are as follows:

- .1 – Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat).
- .2 – Fairly endangered in California (20 – 80% occurrences threatened).
- .3 – Not very endangered in California (<20% of occurrences threatened or no current threats known).

(d) Special-Status Plant Communities

Special-status plant communities include those habitat types considered rare by resource agencies, namely the CDFW, due to their scarcity and/or their ability to support State and Federally-listed Endangered, Threatened, and Rare vascular plants, as well as several special-status bird and reptile species. CDFW maintains a natural plant community list, the *List of California Terrestrial Natural Communities*.[2] Special-status natural communities (also referred to by CDFW as 'rare' or 'special concern') are identified on the list by an asterisk and are considered high priority vegetation types (CDFW, 2003; CDFW, 2000).

(3) Local Regulations

(a) City of Rialto General Plan

The City of Rialto 2010 General Plan outlines a goal to "conserve and enhance Rialto's biological resources." More specifically, Goal 2-39, is supported by the following three policies:

> **Policy 2-39.1:** Protect endangered, threatened, rare, and other special status habitat and wildlife species within and along Lytle Creek by working with the United States Wildlife Service and the California Department of Fish and Game to establish Natural Community Conservation Plans, Habitat Conservation Plans (HCP), or other established biological resource protection mechanisms within this sensitive area.
>
> **Policy 2-39.2:** Pursue open space, wildlife corridors, or conservation easements to protect sensitive species and their habitats.
>
> **Policy 2-39.3:** Continue to work with the United States Fish and Wildlife Service to adopt a habitat conservation plan to protect viability of the Delhi Sands Flower-loving Fly. Until a habitat conservation plan is established, continue to support the implementation of the existing Delhi Sands Flower-loving Fly Recovery Plan.

[2] Available online at: http://www.dfg.ca.gov/biogeodata/vegcamp/natural_comm_list.asp.

b. Existing Conditions

The following description of existing conditions for the Project Site is based on field investigations which are further described in the BRA attached as Appendix C of this Draft EIR. A survey of the Project Site was conducted by PCR on May 12, 2014; and a jurisdictional delineation was conducted by PCR on June 6, 2014. The observed vegetation communities, jurisdictional features, and other biological features or species observations of interest were mapped on aerial photographs. Survey coverage of the entire Project Site was ensured using the aerial photographs, with special attention to special-status habitats or those areas potentially supporting special-status flora or fauna, or jurisdictional features. Focused surveys were conducted by Michael Brandman Associates for the San Bernardino kangaroo rat during the weeks of May 29, 2006 and June 5, 2006, by FirstCarbon Solutions/Michael Brandman Associates for a portion of the Project Site the week of April 28, 2013, for coastal California gnatcatcher between April and June, 2008, and for special-status plants on May 23 and May 30, 2006.

The Project Site is located in the City of Rialto in San Bernardino County and can be found on the U.S. Geological Survey (USGS) 7.5' San Bernardino North topographic quadrangle map, Section 36, T. 1 N., R. 5 W (USGS, 1967; Earth Survey, 2015).

The Project Site is relatively level and currently supports a roadway, open fields (that appear to be regularly disced), a pumping facility with storage tanks and associated infrastructure, disturbed areas, and areas of natural habitat of varying biological quality. Non-native grasslands, which in some areas support a sparse population of blue elderberry shrubs (*Sambucus cerulea*), cover the mid-section of the Project Site and relatively undisturbed mature and intermediate Riversidean alluvial fan sage scrub (RAFSS) habitat dominate the western portion of the Project Site. The most notable changes to the Project Site since the previous biological surveys are the recently completed Pepper Avenue extension and the effects of three years of below normal rainfall.

The topography on the Project Site is generally flat with an elevation range from approximately 1,260 feet above mean sea level (MSL) at the southeastern corner of the Project Site, to a high of approximately 1,300 feet above MSL at the northwestern corner. Mapped soils in the Project area include four soil types as follows (NRCS, 2015):

- Grangeville fine sandy loam (Gr)
- Tujunga loamy sand, 0 to 5 percent slopes (TuB)
- Psamments and Fluvents, frequently flooded (Ps)
- Tujunga gravelly loamy sand, 0 to 9 percent slopes (TvC)

Immediate surrounding land uses include residential development to the west, the 210 Freeway to the north, Lytle Creek to the east, and undeveloped land to the south.

(1) Plant Communities

Descriptions of each of the plant communities found within the Project Site are provided below. Plant community names, codes, and descriptions follow Holland (1986) and A Manual of

California Vegetation, Second Edition (Sawyer, Keeler-Wolf, and Evens, 2009) herein referred to as MCV (Manual of California Vegetation). Special-status natural vegetation communities (also referred to by CDFW as 'rare' or 'special concern') are identified on the list by an asterisk and are considered high priority vegetation types (CDFW, 2003; CDFW, 2000). **Table 4.C-1**, *Plant Communities*, lists each of the plant communities observed as well as the acreage within the Project Site, and locations of each of the plant communities are shown in **Figure 4.C-1**, *Plant Communities*. [3]

In 2014, PCR mapped 0.54 acre of southern willow scrub and 0.45 acre of eucalyptus grove within the existing man-made basin in the southeastern corner of the Project Site. The man-made basin was subsequently evaluated in 2015 as part of an Initial Study prepared by LSA Associates, Inc. (LSA) for the Lord Ranch Facility, a proposed 1-million-gallon steel-welded reservoir operated by the West Valley Water District. The vegetation map prepared by LSA shows the southern willow scrub and eucalyptus grove cleared from the man-made basin (see Figure 2 in Appendix B to the Lord Ranch Initial Study). Therefore, PCR removed these communities from the 2014 vegetation map based on updated existing conditions reported by LSA.

(a) Elderberry (MCV: Sambucus nigra [Blue Elderberry Stands] Alliance *63.410.00)

A large, relatively dense patch of blue elderberry (*Sambucus nigra ssp. caerulea*) was found in the Project Site to the east of Pepper Ave and adjacent to the non-native grassland. Two smaller patches support scattered elderberry trees, which are isolated within the non-native grassland in the eastern portion of the Project Site. The understory is composed of non-native grass species, such as those described in the non-native grassland community in section (c) below. A total of 9.13 acres of elderberry occurs within the Project Site.

TABLE 4.C-1
PLANT COMMUNITIES

Plant Communities	Area (acres)
*Elderberrv	9.13
*Riversidean Alluvial Fan Sage Scrub	31.42
Non-native Grassland	22.62
Ornamental	0.52
Disturbed/Non-native Grassland	2.59
Disturbed/Disced	13.18
Disturbed/Developed	21.94
Total	**101.40**

* Special-status vegetation communities as defined by CDFW

SOURCE: PCR Services Corporation, 2014.

[3] Plant communities include non-vegetated and/or developed areas in order to map the entire Project Site and account for the acreage studied.

SOURCE: Google Maps, 2015.

ESA PCR

Pepper Avenue Specific Plan
Figure 4.C-1
Plant Communities

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(b) Riversidean Alluvial Fan Sage Scrub (MCV: California Buckwheat Scrub Alliance/Eriogonum fasciculatum – (Lepidospartum squamatum) alluvial fan *32.070.01)

Riversidean Alluvial Fan Sage Scrub (RAFSS) dominates the western portion of the Project Site, associated with a drainage feature, and supports species such as California buckwheat (*Eriogonum fasciculatum*) and scale-broom (*Lepidospartum squamatum*), in addition to other species including our Lord's candle (*Hesperoyucca whipplei*), hairy yerba santa (*Eriodictyon trichocalyx*), and prickly pear cactus (*Opuntia littoralis*). The RAFSS is characterized as relatively undisturbed and both intermediate and mature based on vegetation composition. Intermediate RAFSS is where vegetation is rather dense and composed mainly of subshrubs, whilst mature RAFSS is where vegetation is composed of fully developed subshrubs and wood shrubs. A total of 31.42 acres of RAFSS occurs within the Project Site.

(c) Non-native Grassland (MCV: Annual Brome Grasslands 42.026.00)

Non-native grassland within the Project Site is dominated by brome grasses, including ripgut brome (*Bromus diandrus*), with other associated species such as Cryptantha (*Cryptantha sp.*) and telegraph weed (*Heterotheca grandiflora*). This vegetation association dominates the eastern side of Pepper Avenue, with a small portion northwest of the road also. A total of 22.62 acres of non-native grassland occurs within the Project Site.

(d) Ornamental (MCV: Not Application)

The ornamental community within the Project Site primarily consisted of introduced trees, including aleppo pine (*Pinus halepensis*) and citrus trees (*Citrus sp.*). The ornamental community includes two small isolated patches, including one in the northwest corner and another in the northeastern portion of the Project Site. A total of 0.52 acre occupies the Project Site.

(e) Disturbed/Non-native Grassland (MVC: Not Applicable/Annual Brome Grasslands 42.026.00)

The disturbed/non-native grassland community within the Project Site is primarily composed of disturbed areas, which are areas that are heavily affected by human activities; as a consequence, these areas support little to no vegetation. The disturbed areas within this community are intermixed with small patches that support non-native grassland, which is described in section (c) above. The disturbed/non-native grassland community occurs along the western boundary of the Project Site and comprises approximately 2.59 acres.

(f) Disturbed/Disced (MCV: Not Applicable)

The disturbed/disced community on the Project Site is primarily composed of disturbed areas intermixed with areas where vegetation was previously disced. These areas are heavily affected by human activities and support little to no vegetation. The disturbed/disced community occurs along the western boundary of the Project Site and comprises approximately 2.59 acres.

(g) Disturbed/Developed (MCV: Not Applicable)

The disturbed/developed areas are portions of the Project Site that are heavily influenced by humans, which include sparsely vegetated disturbed areas intermixed with development. Development includes Pepper Avenue, which runs in a north-south direction through the center of the Project Site, and a pumping facility in the southeastern corner. The disturbed/developed area occupies approximately 21.94 acres of the Project Site.

(2) General Plant Inventory

The plant communities discussed above are composed of numerous plant species. Observations regarding the plant species present were made during the field visits to the Project Site, and a list of all plant species observed is provided in Appendix A of the BRA. Special-status plant species occurring or potentially occurring within the Project Site are discussed below.

(3) General Wildlife Inventory

The plant communities discussed above provide habitat for common wildlife species. Observations regarding the wildlife species present were made during the field visits to the Project Site, and a list of all species observed is provided in Appendix A of the BRA. Special-status wildlife species occurring or potentially occurring are discussed below.

(4) Special-Status Biological Resources

The following discussion describes the plant and wildlife species present, or potentially present, within the Project Site that have been afforded special recognition by Federal, State, or local resource conservation agencies and organizations. These species have declining or limited population sizes, usually resulting from habitat loss. Also discussed are habitats that are unique, of relatively limited distribution, or of particular value to wildlife. Protected special-status species are classified by either Federal or State resource management agencies, or both, as threatened or endangered, under provisions of the Federal and State Endangered Species Acts (FESA and CESA, respectively).

A list of special-status biological resources potentially occurring within the vicinity of the Project Site was compiled based on a literature review using such resources as CNDDB (CDFW, 2015) and CNPS (CNPS, 2015) The vicinity of the Project Site included the following USGS topographic quadrangles: Silverwood Lake, Lake Arrowhead, Harrison Mountain, Redlands, San Bernardino South, Fontana, Devore, and Cajon. Other resources included Federal register listings, protocols, and species data provided by the United States Fish and Wildlife Service (USFWS) (USFWS, 2015a), USFWS critical habitat maps (USFWS, 2015b) and United States Department of Agriculture Natural Resources Conservation Service (NRCS) soils mapping (NRCS, 2015).

(a) Special-Status Plant Communities

The Project Site supports three special-status plant community that are considered high priority by CDFW based on their state ranking of S3 or rarer, namely Riversidean alluvial fan sage scrub (RAFSS) and blue elderberry stands. The RAFSS dominates the western portion of the Project

Site associated with Drainage A (discussed below), totaling 31.42 acres, and the blue elderberry stands total 9.13 acres east of Pepper Avenue.

(b) Special-Status Plant Species

Special-status plants include those listed, or candidates for listing, by the USFWS and CDFW; and species considered special-status by the CNPS (particularly Lists 1A, 1B, and 2). Several special-status plant species were reported in the vicinity based on CNDDB and CNPS, totaling 82 species within the 9-quadrangle search. The 82 special-status plant species are listed in Appendix B of the BRA. Of the 82 species, only 15 species were considered to have a potential to occur on the Project Site. One of these species was observed on-site, namely the Santa Ana River woollystar (*Eriastrum densifolium ssp. sanctorum*), is a federal and state endangered species. A total of 1,725 individuals of this species were observed by MBA in May 2006 during the focused plant survey, as documented in Appendix C of the BRA (MBA, 2007; also MBA, 2006a and MBA, 2008a). PCR also observed this species during surveys conducted in 2015, as shown on **Figure 4.C-2**, Santa Ana River Woollystar and Red-Tailed Hawk Nest Observations. The plant was also observed during surveys conducted for the SR-210/Pepper Avenue New Interchange Project to the north (Caltrans, 2014). No other special-status plant species were observed or expected to occur based on the results of the focused survey and/or the habitat present within the Project Site, as detailed in Appendix B of the BRA.

(c) Sensitive Wildlife Species

For the purpose of this Draft EIR, special-status wildlife include those species listed as Endangered or Threatened under the FESA or CESA, candidates for listing by the USFWS or CDFW, and species of special concern (SSC) to the CDFW. Several special-status wildlife species were reported in the vicinity based on CNDDB, totaling 51 species within the 9-quadrangle search. Of these, a total of five (5) special-status species were observed within the Project Site, two (2) were species considered to have a low to moderate potential to occur within the Project Site, nine (9) species were considered to have a potential to occur for foraging only within the Project Site, seven (7) species were not expected to occur based on the results of focused surveys within the Project Site, and the remaining 28 species were considered to have no potential to occur based on the absence of suitable habitat or the location of the Project Site outside the known distribution for the species. Details on these determinations are provided in Appendix D of the BRA.

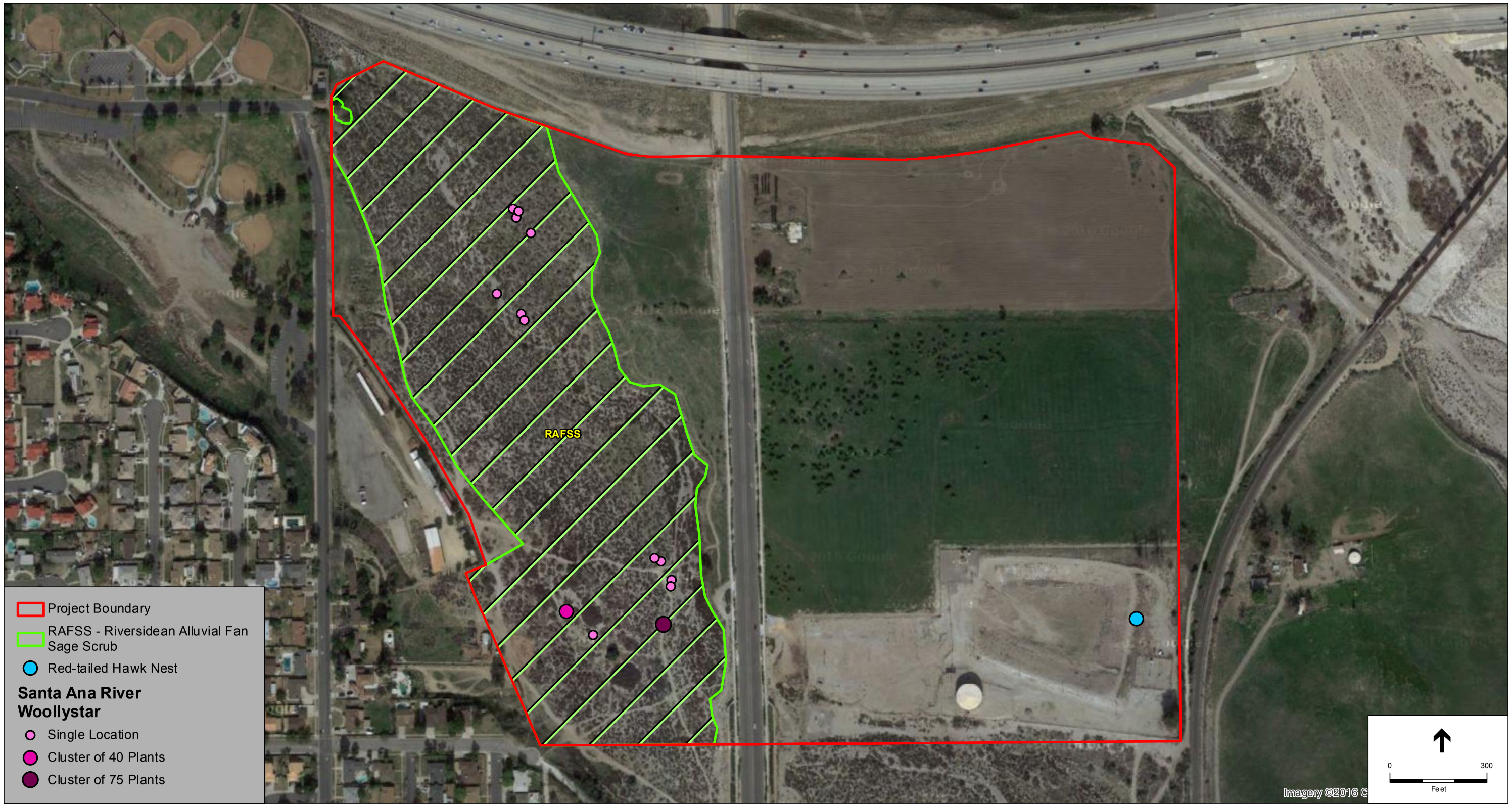
The five special-status species observed within the Project Site included coast horned lizard (*Phrynosoma blainvillii*), loggerhead shrike (*Lanius ludovicianus*), San Bernardino kangaroo rat (*Dipodomys merriami parvus*), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*). Coast horned lizard, loggerhead shrike, Los Angeles pocket mouse, and San Diego black-tailed jackrabbit are considered SSC. The San Bernardino kangaroo rat (SBRK) is a federally endangered species and was detected during focused surveys, which are discussed in further detail within the Focused Surveys section below.

The two species considered to have a low to moderate potential to occur within the study included orange-throated whiptail (*Aspidoscelis hyperythra*) and burrowing owl (*Athene cunicularia*). The orange-throated whiptail is a SSC and although it was observed to the north of the Project Site during an initial reconnaissance survey in 2011 conducted for the SR-210/Pepper Avenue New Interchange Project, this species has not been observed during any of the surveys conducted specifically for the Project Site over the last 10 years. The burrowing owl (*Athene cunicularia*) is a SSC and was considered to have a potential to occupy the Project Site based on the presence of potentially suitable habitat within non-native grassland and disturbed habitats. The Interchange Project conducted focused surveys for burrowing owl in 2011; although the surveys were negative, this highly mobile species was considered to have a potential to migrate to the Project Site at any time (Caltrans, 2014). It should be noted that a portion of the Interchange Project Site south of SR-210 overlaps with the Specific Plan Project Site. Based on the presence of potentially suitable habitat within the Specific Plan Project Site and the mobile nature of this species, but also considering the lack of CNDDB records for the species in this area, the negative results of the surveys conducted for the Interchange Project, and the lack of observations during Site surveys conducted over the last 10 years, this species was considered to have a low to moderate potential to occur.

A total of nine avian and bat species were considered to have a potential to forage only and are not expected to nest or roost on the Project Site. These species include golden eagle (*Aquila chrysaetos*), Swainson's hawk (*Buteo swainsoni*), white-tailed kite (*Elanus leucurus*), northern harrier (*Circus cyaneus*), American peregrine falcon (*Falco peregrinus anatum*), Vaux's swift (*Chaetura vauxi*), western mastiff bat (*Eumops perotis californicus*), pocketed free-tailed bat (*Nyctinomops femorasaccus*), and pallid bat (*Antrozous pallidus*).

Focused Surveys

Focused surveys were conducted for the coastal California gnatcatcher and SBKR. SBKR was detected during trapping surveys conducted by MBA, totaling 12 SBKR individuals that were trapped in May and June of 2006 (MBA, 2006b and MBA, 2008a). During these surveys, two individuals were trapped in the northwestern portion of the Project Site while an additional ten were trapped just south of the Project Site boundary. Both trapping locations were within suitable Riversidean alluvial fan sage scrub habitat. The survey results are outlined in the report attached as Appendix E of the BRA. Surveys were also conducted in March and April 2013 by First Carbon Solutions/MBA for a portion of the survey area located east of Pepper Avenue in an area mapped by PCR as non-native grassland and elderberry. No SBKR were found during those surveys; only 4 Dulzura kangaroo rats (*Dipodomys simulans*) were captured and was likely the same individual since it was captured in the same trap each time and ran in the same direction when released (First Carbon Solutions/MBA, 2013). Dulzura kangaroo rats are not listed as special-status species. No other small mammal species were trapped or detected during the 2013 survey, as outlined in the report attached as Appendix F of the BRA. Additionally, trapping surveys are known to have been conducted within the upstream Lytle Creek area between 1997 and continuing to the present; these surveys indicate that this species occurs but primarily occupies the active Lytle Creek wash.



SOURCE: Google Maps, 2015.

Pepper Avenue Specific Plan

Figure 4.C-2

Santa Ana River Woollystar and Red-Tailed Hawk Nest Observations

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Focused surveys conducted for SBKR confirmed the absence of six additional special-status rodent species on the Project Site. These species included northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), pallid San Diego pocket mouse (*Chaetodipus fallax pallidus*), Stephen's kangaroo rat (*Dipodomys stephensi*), white-eared pocket mouse (*Perognathus alticolus alticolus*), San Diego desert wood rat (*Neotoma lepida intermedia*), and southern grasshopper mouse (*Onychomys torridus ramona*). Although suitable habitat for all six species is present on the Project Site, the negative survey results indicate these species are not expected to occur on the Project Site.

Coastal California gnatcatcher was determined to have potential to occur on the Project Site based on the presence of potentially suitable foraging and nesting RAFSS habitat. No coastal California gnatcatchers were detected on the Project Site during the focused surveys conducted in accordance with USFWS protocols and by a USFWS permitted biologist in April through June 2008 (MBA, 2008b). Therefore, it is assumed that this species is absent from the Project Site. The results are also outlined in a separate survey report attached as Appendix G of the BRA.

Migratory Birds and Raptors

The Project Site supports some potential nesting and foraging habitat for migratory birds and raptors primarily within the limited trees and also shrubs observed on-site. One common raptor species, red-tailed hawk (*Buteo jamaicensis*), was observed nesting on the Project Site by PCR within the eucalyptus grove that was mapped by PCR in 2014. As previously discussed in section 2.b.(1), the eucalyptus grove was subsequently cleared based on findings reported in the 2015 Lord Ranch Initial Study (LSA, 2015). A complete list of bird species observed within the Project Site is listed in Appendix A of the BRA.

(5) Jurisdictional Features

A preliminary jurisdictional assessment of existing on-site drainage and wetland features was conducted by PCR, which served as an expansion to the delineation of the Pepper Avenue Project area conducted by Michael Brandman Associates in January 2008 (MBA, 2008c). The preliminary jurisdictional assessment conducted by PCR determined that the Project Site supports two jurisdictional features identified as Drainage A and Drainage A1 which are subject to regulation by the USACE and the Santa RWQCB as "waters of the U.S.," and by the CDFW as jurisdictional streambed (**Figure 4.C-3**, *Jurisdictional Features*). The Project Site also contains what appears to be a non-jurisdictional man-made basin. The Project Site contains a total of approximately 2,750 linear feet of streambed associated with 0.673 acre of USACOE/RWQCB "waters of the U.S.", 0.023 acre of USACOE/RWQCB "wetlands", and 4.822 acre of CDFW jurisdiction. **Table 4.C-2**, *Jurisdictional Features*, provides a summary of all the jurisdictional features assessed, and a description of these features is provided below.

TABLE 4.C-2
JURISDICTIONAL FEATURES

Drainage	Linear Feet	Area (acres)[a] USACE/RWQCB Non-wetland	USACE/RWQCB Wetland	CDFW	Flow
Drainage A	2,639	0.668	0.023	4.753	Ephemeral
Drainage A1	111	0.005	-	0.069	Ephemeral
Total	**2,750**	**0.673**	**0.023**	**4.822**	

[a] USACE/RWQCB acres are included within the CDFW acres, therefore the numbers are not cumulative.

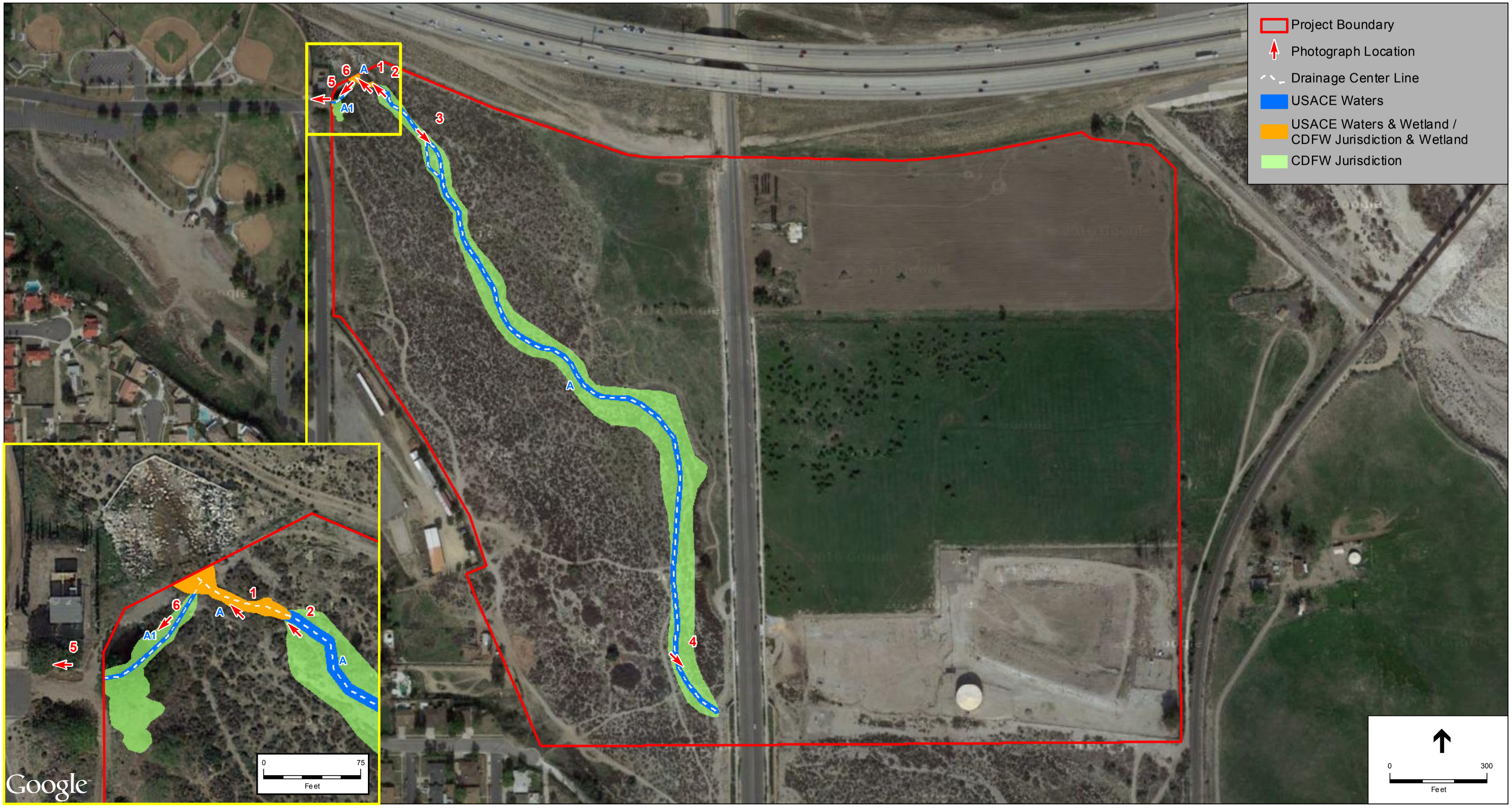
SOURCE: PCR Services Corporation, 2015.

Drainage A (Jurisdictional)

Drainage A is an ephemeral tributary to Lytle Creek that initiates off-site from what appears to be a relatively new culvert beneath Interstate 210. Where the property boundary abuts the grouted rip-rap apron of the existing off-site culvert, there is an on-site area at the headwaters of Drainage A that meets the criteria of a jurisdictional wetlands, which supports obligate vegetation dominated by tall umbrella sedge (*Cyperus eragrostis*) and willow herb (*Epilobium ciliatum*). The wetland does not appear to have occurred in that area prior to the installation of the culvert and likely is the result of increased flows from the culvert, the relatively gentle topographic relief, and the presence of some clay loam soils in and around the streambed. Based on the analysis of soils by PCR, the wetland appears to be in early development and may expand further downstream over time. Drainage A then extends toward the southeast for a total of approximately 2,639 linear feet prior to entering a culvert beneath the recently constructed extension of Pepper Avenue and then exiting the Site on the downstream end of the culvert.

The drainage connects to Lytle Creek Wash, which connects to the Santa Ana River, and ultimately drains to the Pacific Ocean. With the exception of the wetland feature, Drainage A is largely unvegetated with the exception of patches of RAFSS and primarily supports sandy alluvial soils. USACE/RWQCB jurisdictional channel widths average approximately 12 feet, while CDFW jurisdictional channel widths ranged from 20-140 feet based on the top-of-bank condition.

Drainage A totals approximately 0.668 acre of USACE/RWQCB “waters of the U.S.”, 0.023 acre of USACE/RWQCB “wetlands” and 4.753 acres of CDFW jurisdictional streambed.



SOURCE: Google Maps, 2015.

Pepper Avenue Specific Plan

Figure 4.C-3

Jurisdictional Features

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Drainage A1 (Jurisdictional)

Drainage A1 originates offsite from an existing pipe that conveys road runoff from East Eaton Street and extends toward the northwest for approximately 111 linear feet before joining Drainage A. Drainage A1 supports vegetation such as shamel ash (*Fraxinus udei*) and sycamore trees (*Platanus racemosa*) as well as mulefat (*Baccharis salicifolia*). Soils associated with Drainage A1 are sandy wash soils. USACE/RWQCB jurisdictional channel widths in Drainage A1 average approximately 2 feet, while CDFW jurisdictional widths range from 15-70 feet based on the limits of riparian vegetation.

Drainage A1 totals approximately 0.005 acre of USACE/RWQCB "waters of the U.S." and 0.069 acre of CDFW jurisdictional streambed.

Man-made Basin (Non-Jurisdictional)

The man-made basin at the southeast corner of the property appears to be associated with the pumping facility. The man-made basin previously supported a small, isolated stand of southern willow scrub. Based on findings reported in the 2015 Lord Ranch Initial Study, the southern willow scrub has subsequently been cleared and no longer supports riparian vegetation (LSA, 2015). Since the man-made basin lacks riparian vegetation and indicators of USACE/RWQCB "waters of the U.S.", the basin is not considered USACE, RWQCB, or CDFW jurisdictional.

(6) Wildlife Movement

Regional movement in the vicinity of the Project Site is limited based on the high level of development and road/freeway networks, and as such, is restricted to undeveloped corridor areas that primarily include Lytle Creek off-site to the east of the Project Site. The non-native grassland areas within the Project Site are open and do not support large patches of natural communities that would provide habitat, resources, and cover for wildlife. However, the on-site drainage that ultimately drains to Lytle Creek is associated with native RAFSS habitat that supports protected species. Although the on-site drainage supports RAFSS habitat, its function to facilitate regional movement is limited by its lack of connection upstream due to development, such as the 2010 Foothill Freeway, as well as the channelization of Lytle Creek downstream of where the on-site drainage connects to Lytle Creek. Additionally, the Project Site and the vicinity are not identified as a regionally important dispersal or seasonal migration corridor by South Coast Wildlands, with the nearest linkage design, namely the San Gabriel-San Bernardino Connection, approximately 1.5 miles north of the Project Site (South Coast Wildlands, 2008).

Movement on a smaller or "local" scale could occur within the Project Site for species that are less restricted in movement pathway requirements or are adapted to urban areas (e.g., raccoon/*Procyon lotor*, stripped skunk/*Mephitis mephitis*, coyote/*Canis latrans*, and bird species in general). Habitat within the Project Site does include native vegetation communities, particularly the RAFSS that likely supports some wildlife movement within the Project Site and/or between nearby areas for foraging and shelter. Data gathered from the biological survey indicates that the Project Site contains habitat that supports common species of invertebrates, reptiles, birds, and small mammals, in addition to a protected species of mammals within the

RAFSS. The home range and average dispersal distance of many of these species may be entirely contained within the Project Site and immediate vicinity associated with the drainage areas.

3. ENVIRONMENTAL IMPACTS

a. Methodology

Direct impacts are considered to be those that involve the loss, modification or disturbance of natural habitats (i.e., vegetation or plant communities), which, in turn, directly affect plant and wildlife species dependent on that habitat. Direct impacts also include the destruction of individual plants or wildlife, which is typically the case in species of no or low mobility (i.e., plants, amphibians, reptiles, and small mammals). The collective loss of individuals in these manners may also directly affect regional population numbers of a species or result in the physical isolation of populations thereby reducing genetic diversity and, hence, population stability.

Indirect impacts are considered to be those that involve the effects of increases in ambient levels of sensory stimuli (e.g., noise, light), unnatural predators (e.g., domestic cats and other non-native animals), and competitors (e.g., exotic plants, non-native animals). Indirect impacts may be associated with the construction and/or eventual habitation/operation of a project; therefore, these impacts may be both short-term and long-term in their duration. These impacts are commonly referred to as "edge effects" and may result in changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to project sites. Such impacts include increased pollutant discharges to receiving water bodies such as wetlands or marine environments, harassment by humans and/or their pets, light and glare, or increased ambient noise levels.

The determination of impacts in this analysis is based on both the features of the Project and the biological values of the habitat and/or sensitivity of plant and wildlife species potentially affected. The Goals and Objectives of the Project that avoid, preserve, or restore biological resources are taken into consideration and specifically described below prior to the assessment of potential adverse impacts.

Those direct and indirect impacts determined to be less than significant include impacts to biological resources that are relatively common or exist in a degraded or disturbed state, rendering them less valuable as habitat, or impacts that do not meet or exceed the significance thresholds defined below. Those impacts determined to be significant are those that do meet the thresholds of significance defined below. Conclusions are based on both the features of the Project and the biological values of the habitat and/or sensitivity of plant and wildlife species to be affected. Specific considerations included the overall size of habitats to be affected, the Project Site's previous land uses and disturbance history, the Project Site's surrounding environment and regional context, the Project Site's biological diversity and abundance, the presence of special-status plant and wildlife species, the Project Site's importance to regional populations of these species, and the degree to which habitats within the Project Site are limited or restricted in distribution on a regional basis and, therefore, are considered special-status in themselves.

For purposes of analyzing impacts to biological resources, "development Scenario 1" assumes no development within the Community Commercial Overlay PA 7 and PA 8), while development Scenario 2 assumes development within the Community Commercial Overlay PA 7 and PA 8. Under development Scenario 2, additional direct impacts would occur through removal of approximately 6.3 acres of RAFSS habitat and potential SARWS individuals that may be present for development of PA 7 and PA 8.

b. Thresholds of Significance

For purpose of this Draft EIR, the Project has utilized the checklist questions in Appendix G of the CEQA Guidelines as thresholds of significance to determine whether the Project would have a significant environmental impact regarding biological resources. The Project would result in a significant impact to biological resources if the Project would:

Threshold 1: 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 (refer to Impact Statement BIO-1);

Threshold 2: 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 or U.S. Fish and Wildlife Service (refer to Impact Statement BIO-2);

Threshold 3: 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 (refer to Impact Statement BIO-3);

Threshold 4: 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 (refer to Impact Statement BIO-4);

Threshold 5: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (refer to Impact Statement BIO-5); or

Threshold 6: Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (refer to Impact Statement BIO-6).

c. Project Design Features

Of the 101.7 acres located within the Specific Plan, a minimum of 29.5 acres would be preserved as open space. In the development scenario where PAs 7 and 8 are not utilized as permitted by the Community Commercial Overlay, an additional 6.3 acres would be preserved as open space, thereby increasing the overall contiguous open space areas to up to 35.8 acres. The Project's open space areas would be set aside in perpetuity for avoidance and long-term preservation of habitat and species. These lands are primarily composed of the natural drainage feature that exists on the Project Site and eventually feeds into Lytle Creek. This natural open space supports several sensitive plant and wildlife species.

d. Project Impacts

(1) Sensitive Species

Threshold BIO-1: A significant impact would occur if the Project results in 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. Fish and Wildlife Service.

Impact Statement BIO-1: Implementation of the Project could result in a substantial adverse effect, either directly or through habitat modifications, on a species identified as a candidate, sensitive, or special status species, threatened or endangered in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Wildlife Service. Compliance with applicable regulatory requirements and implementation of the prescribed mitigation measures would reduce potentially significant impacts to a less than significant level.

(a) Special-Status Plant Species

Development of the Project Site would result in the direct removal of numerous common plant species; a list of plant species observed within the Project Site is included in Appendix A of the BRA. Common plant species present within the Project Site occur in large numbers throughout the region and their removal does not meet the significance level of Threshold BIO-1. Therefore, impacts to common plant species would not be considered a significant impact and no mitigation measures are required.

One special-status species, the Santa Ana River woollystar (SARWS; federal and state endangered), was observed within the Project Site and specifically within the RAFSS vegetation community. Under development Scenario 1 (no development within the Community Commercial Overlay PA 7 and PA8), impacts would be limited to construction of the potential pedestrian bridge with pilings that would be installed within the RAFSS habitat, and potential impacts from the adjacent development. Specifically, potential impacts could include temporary direct and indirect effects (e.g., inadvertent removal of individuals outside the construction limits; removal of individuals within temporary impact areas; use of chemicals that could harm the species; and oil, gasoline or diesel fuel spills); permanent direct effects (removal for construction of the

pedestrian bridge); and long-term indirect effects (e.g., changes in hydrology resulting from the bridge structure; alterations to the hydrologic regime due to runoff from the development; and introduction of weeds as a result of disturbance in temporary impact areas). Under development Scenario 2 (development within the Community Commercial Overlay PA 7 and PA8), additional direct impacts would occur through removal of approximately 6.3 acres of RAFSS habitat and potential SARWS individuals that may be present for development of PA 7 and PA 8. Potential impacts are shown on **Figure 4.C-4**, *Potential Impacts to SARWS and RAFSS Habitats*.

To minimize these effects, mitigation measures are proposed as outlined in subsection 4, Mitigation Measures, below. These mitigation measures require approval by USFWS and CDFW as part of their take authorization for this species in compliance with the FESA and CESA, respectively, including a federal incidental take statement pursuant to either a Section 7 consultation between the USACE and USFWS with issuance of a Biological Opinion by USFWS or a Section 10(a)(1)(b) incidental take permit; and issuance of a Consistency Determination by CDFW pursuant to Fish and Game Code Section 2080.1 stating that the federal documents are consistent with CESA. Should CDFW determine that the federal statement/permit is not consistent with CESA, an incidental take permit under section 2081subdivision (b) of the Fish and Game Code will be required. With implementation of Mitigation Measure BIO-1 through BIO-3, impacts to the SARWS species would be reduced to a less than significant level.

In regard to potential indirect effects to SARWS, the Project would be required to comply with flood and water quality standards, including preparation of a Water Quality Management Plan (WQMP) and Storm Water Pollution Prevention Plan (SWPPP). These documents would outline measures and Best Management Practices (BMPs) to address water quality issues both during construction and post-construction, and to mitigate post-Project flow rates to less than or equal to pre-Project levels. Examples of measures and BMPs include minimizing urban runoff, minimizing the impervious footprint, constructing basins and swales, providing education materials to residents, activity restrictions such as prohibiting dumping of oils, paint or masonry waste into streets and storm drains, requiring covered trash receptacles, and street sweeping.

The Project Site occupants would be responsible for operations and maintenance of the post-construction BMPs. Detailed designs of the measures and BMPs, and operations and maintenance requirements including specific activities and checklists, would be provided during the final engineering. Thus, all water leaving the development would be treated and would be discharged at rates that would prevent downstream erosion.

The Project Site occupants would be responsible for operations and maintenance of the post-construction BMPs. Detailed designs of the measures and BMPs, and operations and maintenance requirements including specific activities and checklists, would be provided during the final engineering. Thus, all water leaving the development would be treated and would be discharged at rates that would prevent downstream erosion.

Runoff conveyed into the on-site portion of the drainages and leaving the Project Site would be maintained similar to existing conditions, thus allowing the continued survival of the existing habitat. To convey storm flows, detain/retain peak storm events and maintain water quality the

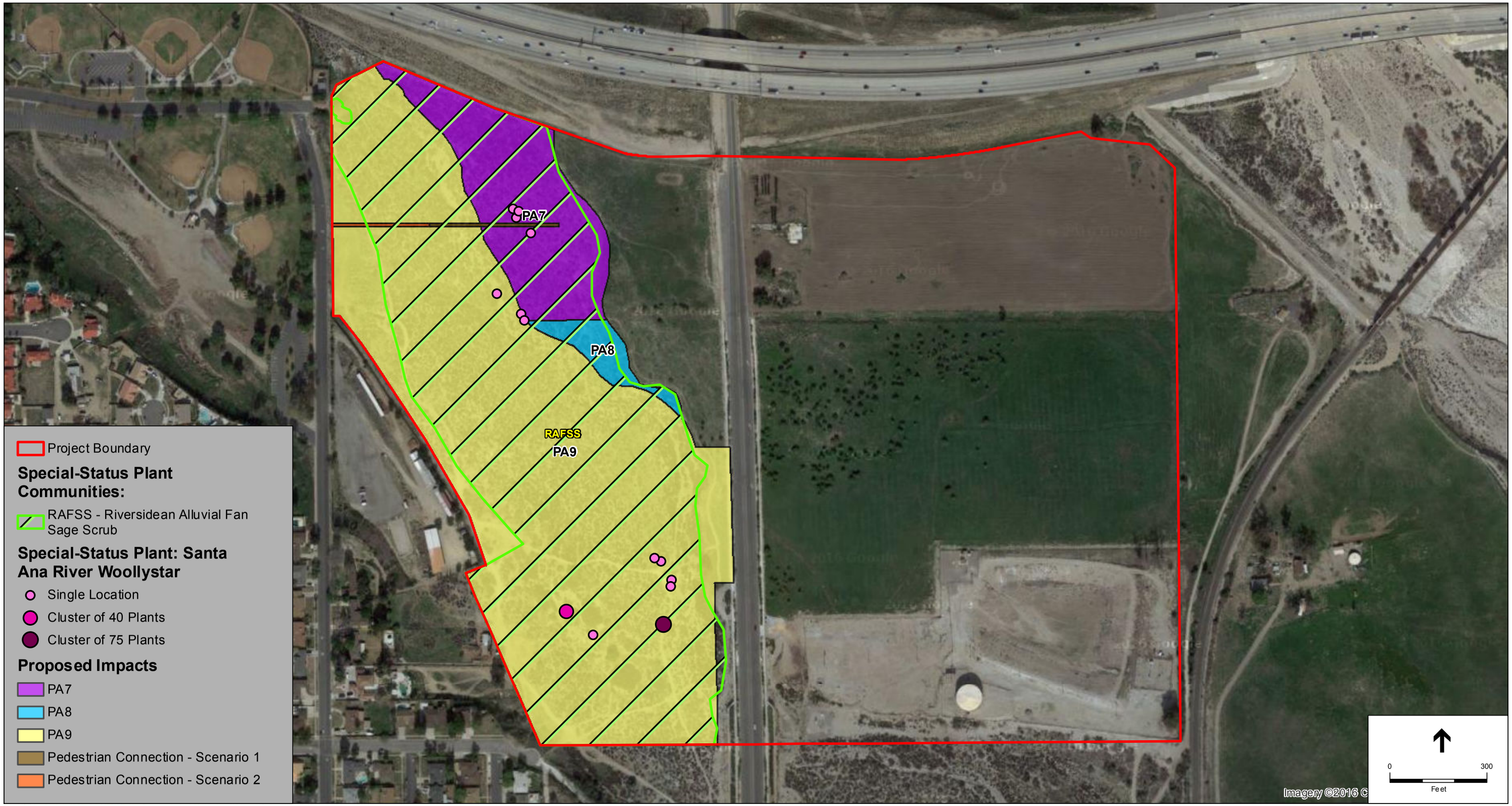
Project would require onsite storm drain facilities that would mimic the drainage patterns of the existing condition. These facilities would include proposed storm drains in addition to sub surface water quality features that are conceptually contemplated within PA 5 and PA 3 that are outside of any special-status biological resources. The SWPP, WQMP, and storm drain infrastructure requirements are incorporated as design features of the Project and would avoid any significant indirect effects as a result of drainage (quantity and quality) from the development to the on-site drainages and to downstream areas. No groundwater extraction is proposed by the Project.

(b) Sensitive Wildlife Species

Development of the Project Site would result in the disruption and removal of non-native vegetation communities and the loss and displacement of common wildlife species. A list of wildlife species observed within the Project Site is included in Appendix A of the BRA. Due to the high level of existing disturbance from human activity both on-site (from Pepper Avenue, the public facility, and areas primarily east of Pepper Avenue) and within the vicinity (e.g., nearby development and infrastructure), these species are likely adapted to human presence and are expected to persist in the area following development. As such, impacts would not be expected to reduce the general wildlife populations below self-sustaining levels within the region since these species and impacts to common wildlife species do not meet the significance level of Threshold BIO-1. Therefore, impacts to common wildlife species would not be considered significant and no mitigation measures are required.

A total of 28 special-status wildlife species of the 51 species identified as occurring in the Project vicinity in available databases are not considered to have a potential to occur within the Project Site due to the lack of suitable habitat or because the Project Site is outside the current known distribution range for the species. These species are listed in Appendix D of the BRA. Since these species are not considered to have a potential to occur within the Project Site, no impacts would occur as a result of development and no mitigation measures are required for these species.

Seven species are not expected to occur based on the negative results of focused surveys, including coastal California gnatcatcher, northwestern San Diego pocket mouse, pallid San Diego pocket mouse, Stephen's kangaroo rat, white-eared pocket mouse, San Diego desert wood rat, and southern grasshopper mouse. Since these species are not expected to be present within the Project Site, no impacts would occur as a result of development and no mitigation measures are required for these species.



SOURCE: Google Maps, 2015.

Pepper Avenue Specific Plan

Figure 4.C-4

Potential Impacts to SARWS Plants and RAFSS Habitat

ESA PCR

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Nine species were considered to have a potential to occur within the Project Site for foraging only, including golden eagle, Swainson's hawk, white-tailed kite, northern harrier, American peregrine falcon, Vaux's swift, western mastiff bat, pocketed free-tailed bat, and pallid bat. These species are not expected to nest/roost on-site due to lack of suitable habitat. For eight (8) of these species (excluding northern harrier), the potential for foraging is considered low since the species have not been observed during any of the surveys conducted within the Project Site over the last 10 years. For the northern harrier, the potential is considered low to moderate since the species was incidentally observed flying over the SR-210/Pepper Avenue New Interchange project site immediately to the north. The quality of potential foraging habitat within the open areas on the Project Site (e.g. disturbed, non-native grassland, and elderberry vegetation communities) is considered low based on the disturbance of these areas through ongoing discing and limited presence of small mammals as prey for the raptor species. The quality of potential foraging habitat within the native RAFSS areas associated with the on-site drainages is considered higher due to the known presence of small mammal species and the higher likelihood of a diverse range of prey such as insects. Within the vicinity of the Project Site potential foraging habitat is constrained by development and infrastructure. As such, foraging is most likely associated with the more extensive open areas including Lytle Creek to the east and the undeveloped mountain areas such as the San Bernardino National Forest and Muscupiabe Hills. Since the majority of the RAFSS habitat would be avoided, the higher quality foraging habitat within the Project Site would be avoided and impacts to foraging species is expected to be less than significant with no additional mitigation measures required.

Five species were observed within the Project Site, including 4 state species of special concern (coast horned lizard, loggerhead shrike, Los Angeles pocket mouse, and San Diego black-tailed jackrabbit) and one federally endangered mammal species (San Bernardino kangaroo rat/SBKR). These species are primarily associated with the RAFSS habitat and under development Scenario 1, impacts would be limited to construction of the pedestrian bridge with pilings that would be installed within the RAFSS habitat, and potential impacts from the adjacent development. Specifically, potential impacts could include temporary direct and indirect effects (e.g., inadvertent take of individuals outside the construction limits; take of individuals within temporary impact areas; use of chemicals that could harm the species; and oil, gasoline or diesel fuel spills); permanent direct effects (take of individuals for construction of the pedestrian bridge); and long-term indirect effects (e.g., changes in hydrology resulting from the bridge structure; alterations to the hydrologic regime due to runoff from the development; and introduction of weeds as a result of disturbance in temporary impact areas). Under development Scenario 2, additional direct impacts would occur through removal of approximately 5.0 acres of RAFSS habitat and potential take of individuals that may be present for development of PA 7 and PA 8. The SBKR occupied RAFSS habitat is also within SBKR critical habitat as designated by USFWS. The majority of the RAFSS habitat would be avoided, including almost the entire 31.42 acres of RAFSS within the proposed 35.8-acre open space area under development Scenario 1 minus the small acreage for the pedestrian bridge pilings, and approximately 29.5 acres of RAFSS (94 percent of the 31.42 acres of RAFSS habitat currently existing) under development Scenario 2. In addition to the avoidance of RAFSS habitat, Mitigation Measures BIO-4 to BIO-6 are proposed to minimize the effects to the RAFSS associated species and SBKR critical habitat. These measures were developed specifically for SBKR but would also minimize effects to other

RAFSS species and habitat. With implementation of the prescribed mitigation measures, potentially significant impacts to these species would be reduced to a less than significant level. For SBKR, the mitigation measures would require approval by USFWS as part of their take authorization for this species in compliance with the FESA, including a federal incidental take statement pursuant to either a Section 7 consultation between the USACE and USFWS with issuance of a Biological Opinion by USFWS or a Section 10(a)(1)(b) incidental take permit.

Two state species of special concern were considered to have a low to moderate potential to occur, including orange-throated whiptail and burrowing owl. Orange-throated whiptail is associated with the RAFSS habitat; avoidance of the majority of RAFSS habitat and the proposed mitigation measures outlined above would reduce any impacts to this species to a less than significant level. Potential habitat for burrowing owl is associated with the disturbed and non-native grassland areas primarily located east of Pepper Avenue. No burrowing owl observations are documented in CNDDB within the Project Site or immediate vicinity, none have been observed during focused surveys conducted within a portion of the Project Site for the Interchange Project, and none have been incidentally observed during any surveys conducted within the Project Site. However, due to the presence of potentially suitable habitat, Mitigation Measure BIO-7 is required to avoid potential impacts to this species including pre-construction surveys and relocation should any owls be found. These measures would reduce potentially significant impacts to burrowing owl to a less than significant level.

Any potential indirect effects to the RAFSS habitat as a result of the quantity and quality of drainage from the development to the on-site drainages and to downstream areas would be avoided through design features incorporated into the Project, as discussed above.

The Project Site also has the potential to support migratory birds and raptors, which are discussed further under Threshold BIO-4 below.

(2) Sensitive Habitats

Threshold BIO-2: A significant impact would occur if the Project results in a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Impact Statement BIO-2: Implementation of the Project could result in a substantial adverse effect on a sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. Compliance with applicable regulatory requirements and implementation of the prescribed mitigation measures would reduce potentially significant impacts to a less than significant level.

In addition to special-status plant communities, the on-site drainages support associated vegetation under CDFW jurisdiction. The Specific Plan may result in permanent and/or temporary impacts to jurisdictional drainages, which would result in potentially significant

impacts to CDFW jurisdictional areas. Compliance with Section 1602 of the California Fish and Game Code, as outlined in Mitigation Measure BIO-8, would reduce impacts to a less than significant level.

(1) Special-Status Plant Communities

The Project Site supports two special-status plant communities that are considered high priority by CDFW based on their state ranking of S3 or rarer, namely Riversidean alluvial fan sage scrub (RAFSS) and elderberry (blue elderberry) stands. Potential impacts to RAFSS habitat and the mitigation to reduce impacts to a less than significant level are discussed above. The potential impact areas are also shown on Figure 4.C-4. With implementation of Mitigation Measures BIO-1 through BIO-6, impacts would be reduced to a less than significant level.

Impacts would occur to the entire 9.13 acres of blue elderberry stands as a result of developing PA 2 and PA 3. CDFW guidelines on addressing high priority vegetation types include ascertaining if Project-affected stands can be considered high-quality, which involves a flexible set of criteria such as the range of existing sustainable occurrences of the vegetation community based on site quality, defensibility, size, and surrounding landscapes. [4] High-quality natural vegetation typically includes those that demonstrate, (1) Lack of invasive exotic species; (2) No evidence of human-caused disturbance such as roads or excessive livestock grazing, or high-grade logging; (3) Evidence of reproduction (sprouts, seedlings, adult individuals of reproductive age); and (4) No significant insect or disease damage, etc. Small impacts to high quality habitats, unless there are other plants or animals of significance associated with it, are unlikely to constitute a significant impact.[5] The blue elderberry community within the Project Site is divided into three polygons, including one larger polygon and 2 smaller polygons, characterized by widely spaced shrubs interspersed with non-native grassland species. Aerial imagery of the Project Site shows signs of past discing activities, and the community did not display any observable signs of reproduction such as sprouts or seedlings. Based on the presence of non-native species, evidence of human disturbance, and no observed signs of reproduction, the blue elderberry community within the Project Site is not considered high quality. The community is also isolated from the drainage located within the Project Site to the west of Pepper Avenue, and from Lytle Creek off-site to the east, and does not support any other special-status plants or special-status wildlife species. Based on the low quality characteristics of the blue elderberry community within the Project Site, the lack of connection with any native habitats or drainages, and the absence of any protected species within this community, impacts to blue elderberry within the Project Site are considered less than significant with no mitigation required.

(2) CDFW Jurisdiction

The Specific Plan avoids land use impacts to the jurisdictional drainages. Potential permanent impacts could occur to CDFW jurisdiction if the pilings of the pedestrian bridge crossing cannot be located outside of the drainages, and/or temporary impacts may be required within the drainages to construct the crossing. Any impacts are expected to be minimal since the bridge

4 http://www.dfg.ca.gov/biogeodata/vegcamp/natural_comm_background.asp

5 http://www.dfg.ca.gov/biogeodata/vegcamp/natural_comm_background.asp#highpriority

dimensions are limited to a 10-foot width spanning a distance of 300 feet if PA 7 is developed (Scenario 2) or 700 feet if PA 7 is not developed (Scenario 1). Based on these dimensions, impacts would be approximately 0.01 acre under either Scenarios 1 or 2; permanent impacts are expected to be limited to the bridge supports with the majority of impacts being temporary for construction.

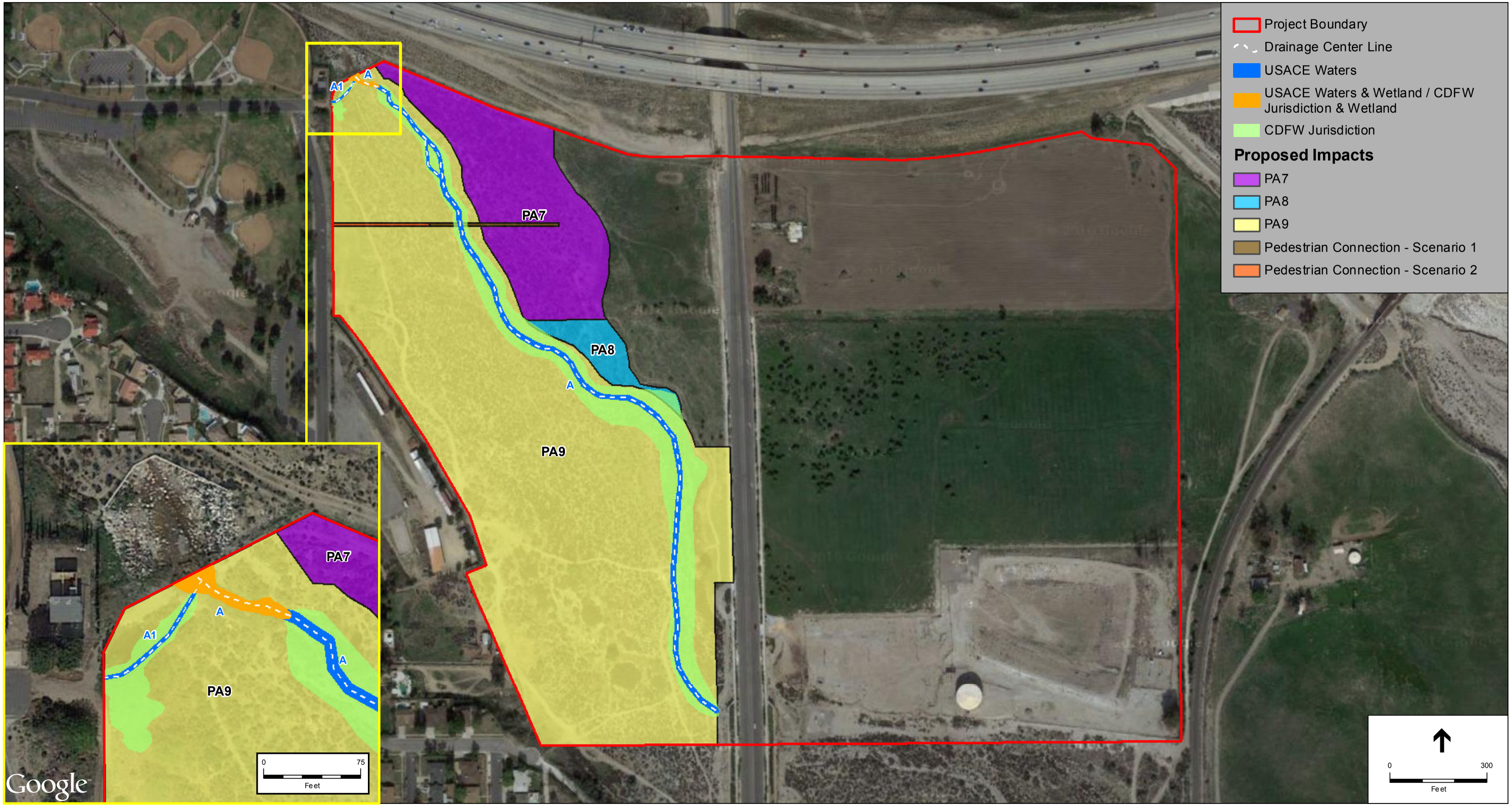
Potential impacts are depicted on **Figure 4.C-5**, *Potential Impacts to Jurisdictional Features.* CDFW jurisdictional features would be required to comply with Section 1602 of the California Fish and Game Code, including applying for a permit and compensatory mitigation. Mitigation Measure BIO-8 prescribed to comply with the compensatory mitigation requirement of this regulation, subject to approval by CDFW. Compliance with Section 1602 of the California Fish and Game Code would reduce impacts to a less than significant level.

(3) Wetlands

Threshold BIO-3: A significant impact would occur if the Project results in a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Impact Statement BIO-3: The Project could result in a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act. Compliance with applicable regulatory requirements and implementation of the prescribed mitigation measure would reduce potentially significant impacts to a less than significant level.

The Project Site supports wetlands in the northwest corner of the Site that would be avoided by the Specific Plan. The Project Site also support USACE/RWQCB non-wetland jurisdiction that is regulated under Sections 404/401 of the CWA. The Specific Plan avoids land use impacts to the jurisdictional drainages. Potential permanent impacts could occur to USACE/RWQCB jurisdiction if the pilings of the pedestrian bridge crossing cannot be located outside of the drainages, and/or temporary impacts may be required within the drainages to construct the crossing. Any impacts are expected to be minimal since the bridge dimensions are limited to a 10-foot width spanning a distance of 300 feet if PA 7 is developed (Scenario 2) or 700 feet if PA 7 is not developed (Scenario 1). Based on these dimensions, impacts would be approximately 0.003 acre under either Scenarios 1 or 2; permanent impacts are expected to be limited to the bridge supports with the majority of impacts being temporary for construction. Potential impacts are depicted on Figure 4.C-5.



SOURCE: Google Maps, 2015.

Pepper Avenue Specific Plan

Figure 4.C-5

Potential Impacts to Jurisdictional Features

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Impacts to USACE and/or RWQCB jurisdictional features would be required to comply with Sections 404 and 401 of the CWA, respectively, including applying for a permit and mitigation subject to approval by USACE and/or RWQCB. Mitigation Measure BIO-8 is prescribed to comply with the compensatory mitigation requirement of these regulations, subject to approval by USACE and RWQCB. Compliance with Sections 404 and 401 of the CWA would reduce potentially significant impacts to a less than significant level.

(4) Wildlife Corridors

Threshold BIO-4: A significant impact would occur if the Project interferes 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.

Impact Statement BIO-4: Implementation of the Project could potentially interfere with the regional movement of native resident or migratory wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. However, compliance with applicable regulatory requirements and implementation of the prescribed mitigation measures would reduce potentially significant impacts in these regards to a less than significant level.

Additionally, the Project Site supports potential nesting and foraging habitat for migratory birds, including raptor species. Compliance with Mitigation Measure BIO-9 would reduce potentially significant impacts to migratory bird species to a less than significant level.

(a) Wildlife Movement

Wildlife movement within the Project Site is considered limited to the native RAFSS vegetation community and associated drainages. This habitat supports protected wildlife species, including the federally endangered SBKR and four species of special concern, and it provides a potential corridor for local wildlife movement between the Project Site and Lytle Creek downstream. The Specific Plan proposes avoidance of the majority of the RAFSS habitat and mitigation measures to minimize effects to the habitat and the special-status species, as described above under Threshold BIO-1. This includes designing the pedestrian crossing to minimize impacts to SBKR habitat and allow continued movement of the species. Implementation of the prescribed mitigation would reduce impacts to wildlife movement to a less than significant level.

(b) Migratory Species

The Project Site supports potential nesting and foraging habitat for migratory birds, including raptors species (a red-tailed hawk nest was observed on the Project Site). Nesting activity typically occurs from February 15 to August 31 for songbirds and January 15 to August 31 for raptors. Disturbing or destroying active nests is a violation of the MBTA (16 U.S.C. 703 et seq.). In addition, nests and eggs are protected under Fish and Wildlife Code Section 3503. As such direct impacts to breeding birds (e.g. through nest removal) or indirect impacts (e.g. by noise causing abandonment of the nest) is considered a potentially significant impact as defined by the thresholds of significance (Threshold BIO-4). Mitigation Measure BIO-9 is prescribed to comply

with the MBTA, which would reduce potentially significant impacts to a less than significant level.

As previously discussed under Threshold BIO-2 above, the open habitat areas within the Project Site are considered low quality for foraging due to ongoing discing and a limited small mammal prey base, while the native RAFSS is considered higher quality due to a diverse range of prey including small mammals and insects. The majority of the higher quality foraging habitat (RAFSS) would be avoided. Therefore, impacts to foraging species are expected to be less than significant with no additional mitigation measures required.

(5) Policy Consistency

Threshold BIO-5: A significant impact would occur if the Project conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Impact Statement BIO-5: The Project would be consistent with local policies to conserve and enhance biological resources within the City. Implementation of the prescribed mitigation measures would ensure compliance with the City's policies and, therefore, less than significant impacts would occur.

The City has three policies outlined in the General Plan to achieve its goal to conserve and enhance Rialto's biological resources. The Specific Plan would comply with these policies as outlined below, therefore less than significant impacts would occur.

> **Policy 2-39.1:** Protect endangered, threatened, rare, and other special status habitat and wildlife species within and along Lytle Creek by working with the United States Wildlife Service and the California Department of Fish and Game to establish Natural Community Conservation Plans, Habitat Conservation Plans (HCP), or other established biological resource protection mechanisms within this sensitive area.

The Specific Plan proposes avoidance and mitigation measures to protect the special-status plant species, wildlife species, and plant communities, in addition to jurisdictional drainages that are known to occur within the Project Site, as outlined above under Thresholds BIO-1 through BIO-3. These measures would also ensure compliance with the City of Rialto's General Plan Policy 2-39.1.

> **Policy 2-39.2:** Pursue open space, wildlife corridors, or conservation easements to protect sensitive species and their habitats.

The Specific Plan proposes avoidance of the majority of the RAFSS habitat that supports special-status species and provides a potential wildlife movement corridor, as outlined above for Thresholds BIO-1, BIO-2, and BIO-4. Avoidance of RAFSS habitat would occur within an open space area. This avoidance would ensure compliance with the City of Rialto's General Plan Policy 2-39.2.

Policy 2-39.3: Continue to work with the United States Fish and Wildlife Service to adopt a habitat conservation plan to protect viability of the Delhi Sands Flower-loving Fly. Until a habitat conservation plan is established, continue to support the implementation of the existing Delhi Sands Flower-loving Fly Recovery Plan.

The Project Site does not support suitable habitat for Delhi Sands Flower-loving Fly. Therefore, this policy is not applicable to the Specific Plan.

(6) Conservation Plan Consistency

Threshold BIO-6: A significant impact would occur if the Project conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impact Statement BIO-6: There is no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan with which the Project would conflict. No impact would occur in this regard.

There is no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan with which the Project would conflict. If the proposed open space areas (i.e., PA 7, PA 8 and/or PA 9) are included within any existing or proposed conservation banks in the future, the Project would be required to comply with any conditions set forth in the approved mitigation plans associated with the conservation bank.

e. Cumulative Impacts

Cumulative impacts are defined as the direct and indirect effects of a proposed project which, when considered alone, would not be deemed a substantial impact, but when considered in addition to the impacts of related projects in the area, would be considered significant. “Related projects” refers to past, present, and reasonably foreseeable probable future projects, which would have similar impacts to the Project. CEQA deems a cumulative impact analysis to be adequate if a list of “related projects” is included in the EIR or the proposed project is consistent with an adopted general, specific, master, or comparable programmatic plan [Section 15130(b)(1)(B)]. CEQA also states that no further cumulative impact analysis is necessary for impacts of a proposed project consistent with an adopted general, specific, master, or comparable programmatic plan [Section 15130(d)].

The Specific Plan design and proposed mitigation would result in a net gain of sensitive habitats (specifically RAFSS), would avoid impacts to special-status species (including the federal listed SBKR, the federal and state listed SARWS, and migratory birds), would result in a minimum no-net-loss of jurisdictional drainage features, would not affect the function of the on-site drainages for wildlife movement, and would comply with City of Rialto policies for biological resources. As such, impacts would not be considered cumulatively significant.

4. MITIGATION MEASURES

Mitigation measures are recommended for those impacts determined to be significant to special-status biological resources. Mitigation measures for impacts considered to be "significant" were developed in an effort to reduce such impacts to a level of "insignificance," while at the same time allowing an opportunity to realize development goals under the Project. As stated in CEQA Guidelines Section 15370 mitigation includes:

1. Avoiding the impact altogether by not taking a certain action or parts of an action.
2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
3. Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.
4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
5. Compensating for the impact by replacing or providing substitute resources or environments.

The mitigation measures outlined in this section address potentially significant impacts from the Specific Plan, and are consistent with those proposed for the Extension of Pepper Avenue project, where applicable (MBA, 2008a).

a. Measures to Mitigate Potentially Significant Impacts to Special-Status Species

Mitigation Measure BIO-1: Prior to and during construction within and adjacent to Riversidean alluvial fan sage scrub habitat the following measures shall be implemented to minimize temporary direct and indirect effects to special-status plant and wildlife species:

- Construction limits shall be temporarily fenced prior to construction activities to avoid the inadvertent disturbance of areas adjacent to the construction limits. This fence shall be constructed as SBKR proof within alluvial fan sage scrub habitat (see Mitigation Measure BIO-2);
- A biological monitor shall be present during clearing and grubbing of the Project Site;
- All movement of construction contractors, including ingress and egress of equipment and personnel, shall be limited to the designated construction zones;
- Construction staging areas shall be located as far from the wash area as feasible;
- The use or rodenticides, herbicides, insecticides, or other chemicals that could potentially harm special-status plant and animal species shall be prohibited;
- The propose use and disposal of oil, gasoline, and diesel fuel shall be enforced;
- Orientation meetings shall be conducted for construction personnel to review construction limits, conservation measures, and the locations of any listed species that must be avoided; and
- Best Management Practices (BMPs) shall be implemented with a storm water pollution prevention plan to avoid and minimize impacts to biological resources outside of construction areas.

Mitigation Measure BIO-2: Prior to construction within and adjacent to Riversidean alluvial fan sage scrub habitat the following design features shall be implemented to minimize long-term indirect effects to San Bernardino kangaroo rat (SBKR) and the Santa Ana River woollystar (SARWS):

- The Project shall be designed to avoid Riversidean alluvial fan sage scrub habitat, where possible.
- The pedestrian crossing shall be designed to minimize changes in the hydrology that could impact the ability of the SARWS to disperse or to establish in sandy soils created by scour, and also minimize the amount of habitat that could become less suitable for SBKR with reduced scour.
- Water runoff from impervious surfaces shall be captured to ensure that the hydrological regime is not altered from the existing condition. Capturing the flows would also help reduce the number of road contaminants that enter the wash.
- Temporary impact areas shall require a weed abatement program for approximately 5-years to ensure it remains suitable to SARWS and SBKR.

b. Measures to Mitigate Potentially Significant Impacts to Santa Ana River Woollystar

Mitigation Measure BIO-3: Prior to any permanent or temporary direct impacts to the Santa Ana River woollystar (SARWS) and where avoidance of impacts through Project design is not possible, the following measures shall be implemented:

- Seeds from all the SARWS proposed for impacts shall be collected from the Project Site and deposited at the Rancho Santa Ana Botanic Garden. The seeds shall be collected in September before the first sizeable rain event (i.e. one of ½ inch or more) to increase the ability to collect the seeds and to ensure a high rate of germination.
- The Rancho Santa Ana Botanic Garden shall divide the seeds for three uses: 1) for a permanent seed bank; 2) for germination and growing seedlings; and 3) to preserve for later seeding or authorized research purposes.
- The propagated seedlings and a portion of preserved seeds shall be replanted within any temporary impact areas once construction has ceased, and any permanent impacts to individual plants shall be replaced at a minimum 1:1 ratio within the proposed avoidance area (PA 9). Planting shall be conducted October to December or as close to the winter rainy season as possible. All replanting shall be conducted pursuant to an approved mitigation and monitoring plan prepared and overseen by a qualified biologist. The plan should include, at minimum, a map of the restoration areas, a description of any irrigation methodology, measures to control exotic vegetation, specific success criteria, a detailed monitoring program, contingency measures should the success criteria not be met, and identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. Monitoring of restoration areas should extend across a sufficient time frame to ensure that the new habitat is established, self-sustaining, and capable of surviving drought.

c. Measures to Mitigate Potentially Significant Impacts to San Bernardino Kangaroo Rat

Mitigation Measure BIO-4: Prior to construction within San Bernardino Kangaroo Rat (SBKR) critical habitat, which consists of Riversidean Alluvial Fan Sage Scrub (RAFSS), the project applicant shall purchase mitigation credits from the Vulcan Materials mitigation land bank in Cajon Wash or equivalent preserved SBKR RAFSS habitat to offset permanent impacts to occupied SBKR critical habitat at a 3:1 ratio, and temporary or indirect impacts at a 1:1 ratio.

Mitigation Measure BIO-5: Prior to construction within Riversidean alluvial fan sage scrub habitat the following measures shall be implemented to minimize temporary direct and indirect effects to San Bernardino kangaroo rat (SBKR):

- A 4-foot high, 0.5-inch temporary steel mesh SBKR exclusionary fence shall be placed along the perimeter footprint where suitable SBKR habitat exists. The bottom of the exclusionary fence shall be buried below ground a minimum depth of 24 inches to minimize the potential that SBKR can re-enter the construction area and to preclude impacts to adjacent habitat. Trapping shall be conducted for SBKR within 30 days prior to ground disturbing activities. Any SBKR or other sensitive mammal species that are captured shall be relocated outside the exclusionary fencing. Trapping shall be conducted by a permitted biologist and according to protocol;
- The temporary SBKR exclusionary fencing shall be maintained in place throughout the duration of construction in these areas to minimize take of SBKR during the construction phase and preclude the inadvertent disturbance of outlying areas by construction personnel. Access to SBKR habitat outside of the construction limits shall be prohibited and posted accordingly. The exclusionary fence shall be inspected weekly and repaired as necessary so that there are no gaps greater than 0.5 inch on any portion of the fence that could allow SBKR entry into the Project Site;
- All the construction equipment shall meet applicable noise ordinances. Compliance with this requirement would minimize noise stress to SBKR in the vicinity of the Project Site; and
- Contractor pets shall be prohibited in and adjacent to the construction area.

Mitigation Measure BIO-6: Prior to construction within and adjacent to Riversidean alluvial fan sage scrub habitat the following design features shall be implemented to minimize long-term indirect effects to San Bernardino kangaroo rat (SBKR):

- The pedestrian bridge supports shall be designed to minimize impacts to SBKR habitat and allow continued movement of SBKR.
- Temporary impacts areas shall be revegetated with native shrub vegetation through container plantings to reestablish SBKR habitat and provide cover and facilitate movement of small mammals. All replanting shall be conducted pursuant to a mitigation and monitoring plan prepared and overseen by a qualified biologist.
- To minimize light and noise pollution, no night lighting shall be directed into the open space areas and noise levels should not exceed City standards.

d. Mitigation for Potentially Significant Impacts to Burrowing Owl

Mitigation Measure BIO-7: A protocol survey for burrowing owl shall be required during prior to any ground disturbing activities within disturbed and non-native grassland habitats. The surveys shall be conducted pursuant to the protocol provided as Appendix D of the Staff Report on Burrowing Owl Mitigation published by the California Department of Fish and Wildlife (CDFW) dated March 7, 2012. A qualified biologist, as defined in the CDFW Staff Report, shall conduct the surveys. Surveys shall preferably be conducted during the breeding season which requires 4 site visits, including at least one site visit between February 15 and April 15; and a minimum of three site visits at least three weeks apart between April 15 and July 15, with at least one visit after June 15.

If burrowing owls are determined present during the focused survey, occupied burrows and habitat shall be avoided if feasible following the guidelines in the above referenced CDFW Staff Report. This includes, but is not limited to, avoiding direct or indirect destruction of burrows, implementing a worker awareness program, biological monitoring, establishing avoidance buffers, and flagging burrows for avoidance with visible markers. Avoidance measures shall be implemented under the direction of the qualified biologist. If occupied burrows or habitat cannot be avoided, appropriate compensation measures shall be determined by the qualified biologist in accordance with the guidelines detailed in the CDFW staff report and subject to approval by CDFW. This includes a Burrowing Owl Exclusion Plan for temporary or permanent exclusion of owls from occupied burrows, and/or a Mitigation Land Management Plan for permanent conservation of similar vegetation communities to provide for burrowing owl nesting, foraging, wintering and dispersal comparable to or of higher quality than the impact area.

e. Measures to Mitigate Potentially Significant Impacts to Special-Status Plant Communities

Mitigation Measure BIO-4 would reduce any impacts to the special-status Riversidean alluvial fan sage scrub (RAFSS) habitat to a less than significant level. Therefore, no additional mitigation measures are required.

f. Measures to Mitigate Potentially Significant Impacts to Jurisdictional Features

Mitigation Measure BIO-8: Prior to the issuance of any grading permit for permanent or temporary impacts in the areas designated as jurisdictional features, the project applicant shall obtain regulatory permits from the USACE, RWQCB, and CDFW, as applicable. The following shall be incorporated into the permitting, subject to approval by the regulatory agencies:

1. On-site and/or off-site creation, enhancement, and/or restoration of USACE/RWQCB jurisdictional "waters of the U.S."/"waters of the State" within the Santa Ana Watershed at a ratio no less than 1:1 or within an adjacent watershed at a ratio no less than 2:1 for permanent impacts, and for any temporary impacts to restore the impact area to pre-Project conditions (i.e., pre-Project contours and revegetate where applicable). Off-site mitigation may occur on land acquired for the purpose of in-perpetuity preservation, or through the purchase of mitigation credits at an agency-approved off-site mitigation bank.

1. On-site and/or off-site replacement and/or restoration of CDFW jurisdictional streambed and associated riparian habitat within the Santa Ana Watershed at a ratio no less than 2:1 or within an adjacent watershed at a ratio no less than 3:1 for permanent impacts, and for any temporary impacts to restore the impact area to pre-Project conditions (i.e., pre-Project contours and revegetate where applicable). Any off-site mitigation may occur on land acquired for the purpose of in-perpetuity preservation, or through the purchase of mitigation credits at an agency-approved off-site mitigation bank.

2. Any purchase of mitigation credits through an agency-approved mitigation bank or in-lieu fee program shall occur prior to any impacts to jurisdictional drainages. If off-site mitigation is proposed on land acquired for the purpose of in-perpetuity mitigation that is not part of an agency-approved mitigation bank or in-lieu fee program shall include the preservation, creation, restoration, and/or enhancement of similar habitat pursuant to a Habitat Mitigation and Monitoring Plan (HMMP). A HMMP shall also be prepared for on-site mitigation. The HMMP shall be prepared prior to any impacts to jurisdictional features, and shall provide details as to the implementation of the mitigation, maintenance, and future monitoring. The goal of the mitigation shall be to preserve, create, restore, and/or enhance similar habitat with equal or greater function and value than the impacted habitat.

g. Measures to Mitigate Potentially Significant Impacts to Migratory or Nesting Birds

Mitigation Measure BIO-6 would ensure the pedestrian bridge does not affect the movement of wildlife species such as San Bernardino kangaroo rat that occupy the RAFSS habitat; therefore, no additional mitigation measures are required pertaining to wildlife movement. Mitigation is required for migratory or nesting birds as outlined below.

Mitigation Measure BIO-9: Prior to the issuance of any grading permit that would remove potentially suitable nesting habitat for raptors or songbirds, the project applicant shall demonstrate to the satisfaction of the City of Rialto that either of the following have been or will be accomplished.

1. Vegetation removal activities shall be scheduled outside the nesting season (i.e., September 1 to February 14 for songbirds; September 1 to January 14 for raptors) to avoid potential impacts to nesting birds.

3. Any construction activities that occur during the nesting season (i.e., February 15 to August 31 for songbirds; January 15 to August 31 for raptors) would require that all suitable habitat be thoroughly surveyed for the presence of nesting birds by a qualified biologist before commencement of clearing. If any active nests are detected a buffer of 100 feet (300 feet for raptors) around the nest adjacent to construction, or as determined appropriate by the biologist, shall be delineated, flagged, and avoided until the nesting cycle is complete. An appropriate buffer shall be determined by the biological monitor to minimize impacts to the nesting bird(s) accounting for factors such as the species, type of construction activities, in addition to habitat and topography that may provide natural sound attenuation. The buffer may be modified and/or other recommendations proposed as determined appropriate by the biologist to minimize impacts.

h. Measures to Mitigate Potentially Significant Impacts to Local City of Rialto Policies

Mitigation Measure BIO-1 through BIO-9 would ensure compliance with the City of Rialto policies pertaining to biological resources. Therefore, no additional mitigation measures are required.

5. LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the implementation of and adherence to the prescribed mitigation measures included herein, all potentially significant impacts would be reduced to a less than significant level.

6. REFERENCES

Caltrans (State of California Department of Transportation). 2014. State Route 210/Pepper Avenue New Interchange Project, City of Rialto, San Bernardino County, California. May 2014.

City of Rialto. 2010. The City of Rialto General Plan. December 2010.

CDFW (California Department of Fish and Wildlife). 2015. California Natural Diversity Database (available by subscription) and Rarefind. CDFW: Sacramento, California.

CDFW. 2012. Staff Report on Burrowing Owl Mitigation. State of California Natural Resources Agency. March 7, 2012.

CDFW. 2003. List of California Terrestrial Natural Communities Recognized by The California Natural Diversity Database. The Vegetation Classification and Mapping Program. Wildlife & Habitat Data Analysis Branch. September.

CDFW. 2000. Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities. State of California, The Resources Agency. December 9, 1983 revised May 8, 2000.

CNPS (California Native Plant Society). 2015. Inventory of Rare and Endangered Plants of California. California Native Plant Society. Available online (http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi).

Earth Survey. 2015. PLSS in Google Earth (PLSGE). Available online at: http://www.metzgerwillard.us/plss/plss.html

First Carbon Solutions/Michael Brandman Associates (MBA). 2013. San Bernardino Kangaroo Rat Focused Survey Report, Pepper Avenue Commercial Center Project, City of Rialto, San Bernardino County, California. June 18, 2013.

Holland, R. F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. State of California Resources Agency. Department of Fish and Game. Non-Game Heritage Program. Sacramento, California

LSA Associates, Inc. 2015. Initial Study Lord Ranch Facility. Prepared for West Valley Water District. San Bernardino County, CA. June 29, 2015.

MBA (Michael Brandman Associates). 2008a. Biological Assessment, Extension of Pepper Avenue Between Highland Avenue and the Interstate 210 Freeway, City of Rialto, San Bernardino County, California. March 27, 2008.

MBA (Michael Brandman Associates). 2008b. Coastal California Gnatcatcher Focused Survey, Pepper Avenue Extension, City of Rialto, Riverside County, California. February 20, 2008.

MBA (Michael Brandman Associates). 2008c. Delineation of Jurisdictional Waters and Wetlands, Pepper Avenue Road Extension, City of Rialto, Riverside County, California. February 20, 2008.

MBA (Michael Brandman Associates). 2007. Results of a Focused Sensitive Plant Survey for Pepper Ave. Specific Plan, a 102-acre Site in the City of Rialto, San Bernardino County, California. February 1, 2007.

MBA (Michael Brandman Associates). 2006a. Habitat Assessment, Pepper Avenue Specific Plan (102 acres), City of Rialto, San Bernardino County, CA. March 21, 2006.

MBA (Michael Brandman Associates). 2006b. San Bernardino Kangaroo Rat Presence/Absence Trapping Surveys on the Pepper Ave Specific Plan in the City of Rialto, San Bernardino County, California. November 14, 2006.

NRCS (Natural Resources Conservation Service). 2015. Web Soil Survey. Available online (http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx).

PCR Services (PCR). 2016. Draft Biological Resources Assessment, Pepper Avenue Specific Plan, City of Rialto, Riverside County, California. Prepared for City of Rialto Development Services Department. June 2016.

South Coast Wildlands. 2008. South Coast Missing Linkages: A Wildland Network for the South Coast Ecoregion. South Coast Wildlands, Idyllwild, CA. www.scwildlands.org. March 2008.

USFWS (U.S. Fish and Wildlife Service). 2015a. Species Occurrence Data. Provided by USFWS.

USFWS. 2015b. Critical Habitat Mapping. GIS files provided by USFWS.

USGS (U.S. Geological Survey). 1967. San Bernardino North, California topographic quadrangle map. Photorevised 1981.

D. Cultural Resources

1. Introduction

This section evaluates potential impacts from the Project on cultural resources including historical, archaeological, paleontological, and tribal cultural resources. The analysis provided in this section is based on a cultural resources technical report prepared by PCR (currently ESA PCR) entitled, *Cultural and Paleontological Resources Assessment of the Proposed Pepper Avenue Specific Plan, City of Rialto, County of San Bernardino, California* (Cultural Resources Assessment), which was originally prepared in July 2014 (revised in August 2016). The Cultural Resources Assessment analyzed impacts regarding historic, archaeological, and paleontological resources. Regarding impacts to tribal cultural resources, the City has not received any formal written "request to consult" letters from Native American tribes or individuals pursuant to AB 52. The Cultural Resources Assessment and Native American consultation documentation are included in Appendix D of this Draft EIR.

The Cultural Resources Assessment determined that the Project would have no impacts on historic or paleontological resources. Thus, discussions of these issue areas within this EIR section are limited, with the focus on impacts to archeological resources. Thus, regulatory framework information regarding historic and paleontological resources is not included within this EIR section. Please refer to the Cultural Resources Assessment for additional background information regarding historic and paleontological resources.

Archaeology is the recovery and study of material evidence of human life and culture of past ages. Over time, this material evidence becomes buried, fragmented or scattered or otherwise hidden from view. It is not always evident from a field survey if archaeological resources exist within a given area. Thus, the possible presence of archaeological materials must often be determined based upon secondary indicators, including the presence of geographic, vegetative, and rock features which are known or thought to be associated with early human life and culture, as well as knowledge of events or material evidence in the surrounding area. Archaeological resources may include both prehistoric remains and remains dating to the historical period. Prehistoric (or Native American) archaeological resources are physical properties resulting from human activities that predate written records and are generally identified as isolated finds or sites. Prehistoric resources can include village sites, temporary camps, lithic (stone tool) scatters, rock art, roasting pits/hearths, milling features, rock features, and burials. Historic archaeological resources can include refuse heaps, bottle dumps, ceramic scatters, privies, foundations, and burials and are generally associated in California with the Spanish Mission Period to the mid-20th century of the American Period.

2. Environmental Setting

a. Existing Conditions

(1) Prehistoric Background (13,500 Years Before Present to 1769 A.D.)

Prehistory is most easily discussed chronologically, in terms of environmental change and recognized cultural developments. Several chronologies have been proposed for inland Southern California, the most widely accepted of which is Wallace's four-part Horizon format (1955), which was later updated and revised by Claude Warren (1968). The advantages and weaknesses of Southern California chronological sequences have been reviewed by Warren (in Moratto 1984), Chartkoff and Chartkoff (1984), and Heizer (1978). The following discussion is based on Warren's (1968) sequence, but the time frames have been adjusted to reflect more recent archaeological findings, interpretations, and advances in radiocarbon dating.

(a) Paleoindian Period (ca. 13,000-11,000 years before present [YBP])

Little is known of Paleoindian peoples in inland southern California, and the cultural history of this period follows that of North America in general. Recent discoveries in the Americas have challenged the theory that the first Americans migrated from Siberia, following a route from the Bering Strait into Canada and the Northwest Coast sometime after the Wisconsin Ice Sheet receded (ca. 14,000 YBP), and before the Bering Land Bridge was submerged (ca. 12,000 YBP). A coastal migration route somewhat before that time is also possible. The timing, manner, and location of this crossing are a matter of debate among archaeologists, but the initial migration probably occurred as the Laurentide Ice Sheet melted along the Alaskan Coast and interior Yukon. One of the earliest radiocarbon dates from a Paleoindian Period site containing human remains in Southern California comes from the Arlington Springs Woman site on Santa Rosa Island. These human remains date to at least 9,500 YBP (Morris and Erlandson 1993). Lifeways during the Paleoindian Period were characterized by highly mobile hunting and gathering. Prey included megafauna, such as mammoth, and technology included a distinctive flaked stone toolkit that has been identified across much of North America and into Central America. Their diet likely contained some plant foods, but the Paleoindian toolkit recovered archaeologically does not include many tools that have been identified as designed specifically for plant processing.

To date, no Paleoindian Period sites have been identified in inland southern California. An example of the earliest dated sites is CA-RIV-2798/H located on the shores of Lake Elsinore, which has been dated to approximately 8,400 YBP (Grenda 1997).

The megafauna that appear to have been the focus of Paleoindian lifeways went extinct during a warming trend that began approximately 10,000 YBP, and both the extinction and climatic change (which included warmer temperatures in desert valleys and reduced precipitation in mountain areas) were factors in widespread cultural change. Subsistence and social practices continued to be organized around hunting and gathering, but the resource base was expanded to include a wider range of plant and game resources. Technological traditions also became more localized and included tools specifically for the processing of plants and other materials. This

constellation of characteristics has been given the name Archaic and it was the most enduring of cultural adaptations to the North American environment.

(b) Archaic Period (ca. 11,000-3,500 YBP)

The earliest Archaic Period lifeways in inland southern California have been given the name San Dieguito tradition, after the San Diego area where it was first identified and studied (Warren 1968). Characteristic artifacts include stemmed projectile points, crescents and leaf-shaped knives. These suggest continued subsistence practices focused on large game, although not on the megafauna of the earlier Paleoindian Period. Milling equipment appears in the archaeological record at approximately 7,500 YBP (Moratto 1984:158). The La Jolla Complex (7,500–3,000 YBP) is characterized by artifact assemblages with basin millingstones and unshaped manos, projectile points, flexed cairn burials, and cogged stones. The transition from San Dieguito tradition to La Jolla lifeways appears to have been an adaptation to drying of the climate after 8,000 YBP, which may have stimulated movements of desert peoples to the coastal regions, bringing millingstone technology with them. Groups in the coastal regions included mollusks in their diet, while inland groups relied on wild-seed gathering and acorn collecting.

(c) Late Prehistoric Period (ca. 3,500 YBP-A.D. 1769)

Environmental changes around 4,000–3,000 YBP may have underlain a cultural shift to more land-based gathering practices. This period was characterized by the increasing importance of acorn processing, which supplemented the resources from hunting and gathering. The Late Prehistoric Period of the San Bernardino Mountain and eastern San Gabriel Mountains area has been defined by work at the Sayles site, CA-SBR-421, by Kowta (1969). Artifact assemblages characteristic of the Sayles site include percussion-flaked scraper planes, cores, plano-convex scrapers, choppers, and hammerstones. This type of assemblage, referred to as the Sayles Complex, has been dated to approximately 3,000-1,000 YBP. The Sayles Complex is similar to Late Prehistoric assemblages found along the coast, but lacks mortars and pestles. The absence of mortars and pestles may be due to population or technological changes introduced to the San Bernardino Mountain area along with Uto-Aztecan languages, the so-called “Shoshonean Wedge”, by about 1,500 YBP.

(d) Ethnographic Context

The Project Site is located on the boundary between Serrano and Gabrielino territories, and was likely used by both groups. Both groups are discussed below.

Serrano

The term Serrano refers to both an ethnic group and a group of languages in the Takic family including Serrano and Kitanemuk, and possibly Vanyume and Tataviam. The Serrano lived in an area that extended from Cajon Pass at the western end of the San Bernardino Mountains, east to Twentynine Palms, north to Victorville, and south to the Yucaipa Valley. This area contains a range of very different topographies, including the San Bernardino Mountains and flat valley areas. The Serrano subsisted on plant and animal resources in both the mountain and desert life zones. This included hunting animals such as mountain goats, deer and rabbits; and collecting

plant foods such as grass seeds, acorns, piñon nuts, bulbs, roots, berries, and mesquite pods (Bean and Smith 1978b).

Serrano villages were typically located in the mountain foothills. Water availability appears to have been a major determining factor in the placement of the villages. According to the CHRIS-SBAIC, a Serrano village called *Santisima Trinidad* (pending site number P1072-25) is said to have been located in the vicinity of Sycamore Grove approximately four miles northwest of the Project Site; this village has not been located by archaeologists (L.D. King 2001:4.10-6). Other known Serrano villages in the region include *Guapiabit* and *Muscupiabit* near the Cajon Pass. The Serrano's first contact with the Spanish is thought to have been in 1771 when Mission San Gabriel was established or in 1772 during Pedro Fages's forays into Serrano territory (Bean and Smith 1978b:573). In 1819 an *asistencia* (an outpost for cattle activities) of the Mission San Gabriel was constructed near present day Redlands (San Bernardino County Museum 2006). Many Serrano people were forced to live on mission grounds until missions were secularized in 1834. Today, many Serrano live on the Morongo and San Manuel Indian reservations in San Bernardino County (Bean and Smith 1978b:573).

Gabrielino

Named after the San Gabriel Mission, the Gabrielino (or Gabrieliño, -eño, Tongva, or Kizh) occupied sections of Los Angeles, Orange, and San Bernardino Counties (Bean and Smith 1978a). Gabrielino was one of several Cupan languages in the Takic family which belongs to the Uto-Aztecan linguistic stock. Gabrielino territory included the Los Angeles Basin, the watersheds of the Los Angeles, San Gabriel, and Santa Ana Rivers, intermittent streams in the Santa Monica and Santa Ana Mountains, the coast from Aliso Creek in the south to Topanga Creek in the north, and the islands of San Nicolas, Santa Catalina, and San Clemente. Similar to the Serrano, the Gabrielino subsisted on a variety of resources in several ecological zones. Acorns, sage, and yucca were gathered throughout the inland areas, whereas shellfish, fish, and a variety of plants and animals were exploited within the marshes and along the coast. Deer and various kinds of small mammals were hunted on an opportunistic basis.

The settlement patterns of the Gabrielino and other inland groups were similar and they often interacted through marriage, trade and warfare. The seasonal availability of water and floral and faunal resources influenced seasonal migration rounds with more permanent villages and base camps being occupied primarily during winter and spring months. In the summer months, the village populations divided into smaller units that occupied seasonal food procurement areas. The more permanent settlements tended to be near major waterways and food sources and various secular and sacred activities, such as food production and storage and tool manufacturing, were conducted at these areas (Bean and Smith 1978a).

(2) Historic Background

(a) Rancho Muscupiabe

The Project Site is located within a large section of the historic Rancho Muscupiabe (Muscupiabe), which is named after a nearby Serrano village called *Muscupiabit*. Muscupiabe encompassed approximately one square league (approximately 4,500 acres) of northwestern San

Bernardino Valley (L.D. King 2001). In 1843, Governor Manuel Micheltorena gave the Muscupiabe to Michael White, a European settler (Kielbasa 1997). Muscupiabe was abandoned by 1845 because it could not be defended against the local Native Americans. In 1870, the United States Land Commission conducted a survey of Muscupiabe and expanded it to approximately 30,000 acres. The survey was conducted as a result of a dispute over the water rights to Lytle Creek (L.D. King 2001). In 1851, Captain Andrew Lytle led the Mormon Battalion and Mormon settlers to the San Bernardino area. Lytle Creek Wash was named after Captain Lytle. These first Mormon settlers camped at Sycamore Grove, is now California Historical Landmark (CHL) number 573, located within the Glen Helen Regional Park approximately five miles northwest of the Project Site.

(b) Lytle Creek

Lytle Creek Wash has a long history of water capture and conveyance and has been the subject of many water rights disputes. In the mid-to-late 1800s, three ditches were constructed to transport water. These ditches included the Rancheria Ditch, the Old Town Ditch, and the Lloyd Ditch (L.D. King 2001: 4.10-5). At this time, settlers living on Muscupiabe lands fought with the rancho owners over water rights. The Lytle Creek Water Company was formed by 1881 to manage water rights. Soon thereafter, real estate investors changed its name to Semi-Tropic Land and Water Company. It went bankrupt by 1896. Thereafter, numerous companies held the water rights to Lytle Creek Wash. In 1932, the Fontana Union Water Company constructed a series of concrete and stacked-rock water control features located in and around Lytle Creek Wash (Van Wormer and Langenwalter 1990). These flood control features were constructed as part of the Lytle Creek Flood Control Project and were likely damaged or destroyed during major floods in March of1938 (Dice et al. 2004).

(c) City of Rialto

Rialto was founded with the introduction of the Santa Fe Railroad, connecting San Bernardino to Los Angeles, in 1887. The area began initially as a citrus-growing town with over 2,000 residents. Low land prices, soils, and other conditions made it ideal for citrus growing. Citrus groves, eucalyptus tree wind breaks, and the San Gabriel and San Bernardino Mountains provided a gorgeous backdrop to this agrarian area. In the 1950s, orange groves were replaced by housing subdivisions as Rialto became one of the fastest growing cities in the region (City of Rialto 2010).

(3) Resources Identified within the Project Site and Vicinity

(a) Methodology

PCR conducted a program-level Cultural Resources Assessment of the Project Site to identify potential impacts to archaeological, historical, and paleontological resources and to develop mitigation measures where appropriate and feasible to avoid, reduce, or mitigate potential impacts to cultural resources for the purpose of complying with CEQA and the City's General Plan. The scope of work for this Cultural Resources Assessment included a cultural resources records search through the California Historical Resources Information System-San Bernardino Archaeological Information Center (CHRIS-SBAIC), a Sacred Lands File (SLF) search through

the California Native American Heritage Commission (NAHC) and follow-up Native American consultation, and a paleontological records search through the San Bernardino County Museum (SBCM). The scope of work also included additional background research, an evaluation of known resources regarding their eligibility for listing in the California Register of Historical Resources, potential Project impacts, and formulation of mitigation measures to reduce or avoid potentially significant impacts. The detailed methodology and results of these tasks are provided below.

Cultural Resources Records Search

On June 4, 2014, PCR conducted an in-house records search of the Project Site at the CHRIS-SBAIC. The records searches included a review of all recorded archaeological and historical resources within a one-half mile radius of the Project Site. In addition, PCR reviewed the California Points of Historical Interest (CPHI), the California Historical Landmarks (CHL), the CRHR, the NRHP, and the California State Historic Resources Inventory (HRI) listings. The purpose of the record search was to identify previously recorded archaeological resources within the boundaries of the Project Site and which may be impacted by the Project. The records search also provides a basis for assessing the potential to encounter additional and/or buried archaeological resources during excavations associated with implementation of the Project.

Paleontological Resources Records Search

On June 3, 2014, PCR commissioned a paleontological resources records search through the SBCM. This records search entailed an examination of current geologic maps and known fossil localities inside and within the general vicinity of the Project Site. Results of the record search indicate whether or not there are previously recorded paleontological resources or fossiliferous geological formations within the Project Site. The results also provide a basis for assessing the sensitivity of the Project Site for additional and buried paleontological resources.

Sacred Lands File Search and Native American Consultation

On June 3, 2014, PCR commissioned a SLF records search of the Project Site through the NAHC in Sacramento, California and conducted follow-up consultation with Native American groups and/or individuals identified by the NAHC as having affiliation with the vicinity of the Project Site. Each Native American group and/or individual listed was sent a Project notification letter and map and was asked to convey any knowledge regarding prehistoric or Native American resources (archaeological sites, sacred lands, or artifacts) located within the Project Site or surrounding vicinity. The letter included information such as Project Site location and a brief description of the Project. Results of the search and follow-up consultation provides information as to the nature and location of additional prehistoric or Native American resources to be incorporated in the assessment whose records may not be available at the CHRIS-SBAIC.

Site Visit

On June 16, 2014, PCR conducted a spot-check pedestrian survey of the Project Site to examine existing conditions. Regarding historic resources, PCR visited known potential resource locations to examine their current condition and content and surveyed the Project Site to confirm if any unknown resources exist. Regarding paleontological resources, PCR confirmed the on-site soil

types based on records searches to determine the potential for the Site to yield paleontological resources. Regarding archaeological resources, a full coverage archaeological survey was not conducted recognizing that where warranted by level of sensitivity, subsequent more focused environmental review, including full-coverage surveys, would occur as future project-specific development proposals are initiated under the Specific Plan. PCR did visit known archaeological resources within the Project Site to examine their current condition and content. For areas that were surveyed, the ground surface was examined for archaeological resources to assess the general sensitivity to yield archaeological resources.

(b) Results

Cultural Resources Records Search

Based on the records search results from the SBAIC, a total of nine studies have been previously conducted within a one-half mile of the Project Site. Of these nine studies, three (Dice 2005; Dice 2008; and Jones et al. 2012a) have previously encompassed portions of or the entire Project Site. These four studies are described below:

Dice (2005)

The study by Dice (2005) consisted of a cultural resources assessment for the Pepper Street Specific Plan and encompassed the entire boundaries of the Project Site, plus additional areas to the south and east of the Project Site. This study yielded the identification of two historic period complexes. Historic elements at the first complex included a ditch and a metal-roofed barn located along the northern portion of the Project Site, and immediately east of the newly developed North Pepper Avenue. Historic elements at the second complex included a dry water reservoir and corral remnants. Based on the survey results, Dice (2005) concluded that the majority of the western portion in the Project Site had low sensitivity for cultural resources because this area is located in the old Lytle Creek flood channel. Dice classified the entire eastern portion of the Project Site, a small portion on the western side, and a relatively small portion on the southwest side of the Project Site as having a high sensitivity for cultural resources.

Dice (2008)

Dice (2008) conducted a Cultural Resource Significant Assessment for the North Pepper Avenue Extension Project. This study encompassed an approximately 20-acre area along the newly built North Pepper Avenue that currently bisects the Project Site into eastern and western halves. The study revealed the existence of two cultural resources that Dice designated as Temp #1 and a segment of PSBR-33H. Temp #1 is described as five features, three of which were previously mentioned in the Dice (2005) report as forming part of a second complex identified during a pedestrian survey. The other two features; Feature 4 consisted of a main ranch house and Feature 5 consisted of a large earth-bermed reservoir. Feature 4 is believed to have been located east of a railroad spur and outside the Project Site, while Feature 5 is believed to have been located southeast of the Project Site. Temp #1 was recommended as ineligible for listing in the California Register by Dice (2008). The report by Dice (2008) is in draft form and it appears that Temp#1 was never actually recorded in a DPR Form as it is not available at the SBAIC.

PSBR-33H is described as a historic metal water pipeline that was previously identified and was revisited during Dice's 2008 study. This resource is located immediately outside of the southwest boundary of the Project Site. The 2008 study mentioned that the segment of PSBR-33H is presently covered with decaying asphalt pavement and that it was possible that this resource could have been unearthed during the Pepper Avenue road construction. PSBR-33H was recommended as ineligible for listing in the California Register by Dice. Dice (2008) recommended archaeological monitoring for the North Pepper Avenue Extension Project once earthmoving or grading reached two feet below the modern ground surface.

Jones et al. (2012a)

Jones et al. (2012a) conducted a Cultural Resources Inventory for the Pepper Avenue Extension Project in the City of Rialto. The pedestrian survey for this Project yielded the identification of one historic-period archaeological resource, P36-026760/CA-SBR-16908H, and was recorded on a Department of Parks and Recreation (DPR) form. Some elements of this resource were previously identified by Dice (2005, 2008). The resource was evaluated for the California Register and was recommended by Jones et al. (2012a) as ineligible for listing. Jones et al. recommended monitoring during construction activities. A detailed description of P36-026760/CA-SBR-16908H is provided in the next section. Jones et al. (2012a) also noted that during their survey, the old Rialto Canal (PSBR-33) which was previously mentioned in Dice's (2005) report could not be relocated. It was mentioned that the Canal was located in the middle of a steep bluff and that it probably got washed away by Lytle Creek or was destroyed during the construction of the houses along the bluff.

P36-026760/CA-SBR-16908H

This resource is a historic period agricultural complex and/or homestead that contains eight features, three of which (Features 1, 2, and 5) are modern. The resource is located in a drainage basin on the south side of the SR-210 overpass and it is surrounded on the south side by a ring of palm trees. Two historic artifacts are also present within this site and these consist of two fragments of sun-colored-amethyst glass dating back to between 1880 and 1918. Feature 1 consists of a large concrete slab foundation that has an entryway with three different rooms. This feature is considered modern as it was built between 1980 and 2005. Feature 2 is a small rectangular concrete structure that is modern and is located east of Feature 1. Feature 1 consists of a broken concrete foundation measuring 13 feet (east-west) by 18 feet (north-south). This feature exhibits signs of having been partially burnt and the foundation is broken into large chunks on the south side. It has been suggested that this feature could be part of a larger rectangular structure as it is depicted on aerial photos. Artifacts around this feature comprise of plastic bowls, a garden hose, one sanitary can, wood pallet debris, metal hardware (washers), particle board, and PVC pipe, and a post similar to the one found in Feature 4. Feature 4 is made up of two posts situated at the northeast corner of Feature 3. The first post is a circular wooden post and similar to an electrical pole. The second post, possibly a railroad tie is hanging down from a rope that is attached to the first pole. Feature 5 is a rectangular concrete structure with a milled lumber pitched roof. This feature may have been possibly used as a septic tank. Feature 6 is made up of a group of four large telephone/electrical posts that can be found on the southwest side of the asphalt drive. A partial spray painted sign is nailed to the center of the grouping of posts. These posts are believed to have been a base for a sign post that marked the entrance to the property.

Feature 7 represents a faint and linear, north-south trending concrete foundation line that is decomposing. The feature is located east of the main house foundation. Strands of wire are embedded in the concrete which suggests that it may have been possibly used as a foundation for a fence of border wall. Feature 8 is a long east-west trending irrigation ditch that is covered with modern refuse and dry scrub. This feature appears on aerial photographs as early as 1938 (Jones et al. 2012b).

Other Resources Located Outside the Project Site

The records search conducted at the SBAIC revealed that three other resources (P1071-8H, PSBR-14 and 36-021326) are located in close proximity to the Project Site, but outside its boundaries. These resources are described in detail below.

P1071-8H

According to records obtained from the SBAIC, a schoolhouse named the "Brooke School Site" (resource P1071-8H) is mapped in the vicinity of the Project Site although it is not depicted in historical topographic maps or aerials from 1908 and later. According to these same records, the school site was the first school house built in the Rialto area in 1886 (SBAIC pending site n.d).

PSBR-14

PSBR-14 is described as a prehistoric Indian village site. Jones et al. (2012a) attempted to relocate the site but was unsuccessful and noted that the resource could have been mapped incorrectly or the resource may have been damaged by Lytle Creek. This resource was presumably located south of the boundaries of the Project Site.

36-021326

36-021326 is a section of the Union Pacific Railroad (UPRR) which is located immediately east of the southeast boundaries for the Project Site. Although this section of the railroad has not been recorded yet, the section is considered an extension of a previously recorded segment for the UPRR Company's Colton-Palmdale Cutoff and the UPRR bridge over Institution Road (George 2009).

Five other resources (P1071-16H, P1071-23H, P1071-28H, P1074-88H, and CA-SBR-8866H) are also located within the one-half mile radius of the Project Site, but far enough away from the Project Site boundaries to not be impacted by any future developments associated with the Project. Resource P1071-16H is the Micaleff family home. P1071-23H consists of a Rancheria ditch. P1071-28H is a postwar residential tract/commercial development that is associated with the unincorporated community of Muscoy. P1074-88H is a water transportation site. CA-SBR-8866H is a historic period trash scatter.

Paleontological Records Search

The results of the paleontological records search indicate that the Project Site is located within surface exposures of Holocene-aged (11,000 YBP to present day) wash sediments that overlie Holocene-aged younger alluvium. These units are not old enough to have potential for yielding paleontological resources. Therefore, these sediments have a low paleontological sensitivity. The

results of the paleontological records search also did not reveal resources localities within the boundaries of the Project Site nor within one mile of the Project Site (Scott 2014).

Sacred Lands File Search and Native American Consultation

Results of the SLF search through the NAHC did not indicate any known Native American cultural resources from NAHC database within the Project Site. The NAHC results also noted, however, that "the absence of archaeological features, Native American cultural resources does not preclude their existence at the subsurface level" (Singleton 2014). Pursuant to NAHC suggested procedure, letters were sent via certified mail on June 24, 2014 to the 12 Native American individuals and organizations identified by the NAHC as being affiliated with the vicinity of the Project Site to request any additional information or concerns they may have about Native American cultural resources that may be affected by the Project. To date, one response has been received by Mr. Andy Salas, Chairman of the Gabrielino Band of Mission Indians/Kizh Nation. Mr. Salas considers the Project Site "a highly culturally sensitive area" and mentions that the prehistoric village of *Waatsnga* is located near the Project Site and that it "covered most of Rialto and Fontana." Mr. Salas also recommends Native American monitoring during construction of any future projects within the Project Site. Mr. Salas' email response and the NAHC results letter are included in the cultural resources technical report that is provided in Appendix D of this Draft EIR. No other responses have been received from the Native American contacts.

Site Visit

The eastern portion of the Project Site, which is separated from the western portion by the paved North Pepper Avenue roadway, exhibits previous ground disturbance in the south (consisting of clearing/grading for pad development) as a result of the construction of West Valley Water District (WVWD) facilities. A dry water reservoir which was previously identified by Dice (2005, 2008), but never recorded was observed during the site visit. This reservoir was densely covered with grasses and trees. No evidence of PSBR-14, which was presumably located near and south of the Project Site, was seen. The middle and northern portions were covered with dense vegetation during the site visit. However, it appeared that these areas had been previously plowed. The site visit also confirmed the existence of CA-SBR-16908H, a historic period agricultural complex located on the northern portion and adjacent to the east side of Pepper Avenue. In addition, results of the investigations by PCR revealed the presence of several building foundations and a dry water reservoir located in the southeastern most corner of the Project Site.

The western portion of the Project Site is completely undeveloped and consists of an ephemeral tributary to Lytle Creek, which is covered with natural vegetation. No evidence of the Brooke School site (P1071-8H) from the SBAIC records was observed and no evidence of PSBR-33H was observed during the site visit.

b. Regulatory Framework

Numerous laws and regulations require State and local agencies to consider the effects of a proposed project on archaeological and tribal cultural resources. These laws and regulations

stipulate a process for compliance, define the responsibilities of the various agencies proposing the action, and proscribe the relationship among other involved agencies. Pertinent laws and regulations are described in more detail, as follows:

(1) State Level

(a) California Register of Historical Resources

Created by Assembly Bill 2881, which was signed into law on September 27, 1992, the California Register of Historical Resources (California Register) is "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change."[1] The criteria for eligibility for the California Register are based upon National Register criteria.[2] Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.[3]

To be eligible for the California Register, a prehistoric or historic property must be significant at the local, state, and/or federal level under one or more of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the California Register must meet one of the criteria of significance described above and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

(b) California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the State. CEQA requires lead agencies to determine if a proposed project would have a significant effect on archaeological resources (Public Resources Code Sections 21000 et seq.). As defined in Section 21083.2 of the Public Resources Code a "unique archaeological resource" is an archaeological artifact, object, or site, about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

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1 *California Public Resources Code Section 5024.1(a).*
2 *California Public Resources Code Section 5024.1(c).*
3 *California Public Resources Code Section 5024.1(d).*

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

In addition, *State CEQA Guidelines* Section 15064.5 broadens the approach of classifying archaeological resources by using the term "historical resource" instead of "unique archaeological resource." The *State CEQA Guidelines* recognize that certain archaeological resources may also have significance. The *State CEQA Guidelines* recognize that a historical resource includes: (1) a resource listed in, or determined by the State Historical Resources Commission to be eligible for listing in, the California Register; (2) a resource included in a local register of historical resources, as defined in California Public Resources Code Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of California Public Resources Code Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

If a lead agency determines that an archaeological site is a historical resource, the provisions of Section 21084.1 of the California Public Resources Code and Section 15064.5 of the *CEQA Guidelines* apply. If an archaeological site does not meet the criteria for a historical resource contained in the *State CEQA Guidelines*, then the site is to be treated in accordance with the provisions of California Public Resources Code Section 21083.2, which refer to a unique archaeological resource. The *CEQA Guidelines* note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment.[4]

(c) Assembly Bill 52

Assembly Bill 52 (AB 52) is recent legislation that amends CEQA and requires lead agencies to consult with California Native American tribes to identity, evaluate, and mitigate impacts to a new type of cultural resource called "tribal cultural resources", if the tribes formally request consultation. To date, the City of Rialto has not received any formal written "request to consult" letters from Native American tribes or individuals pursuant to AB 52.

A tribal cultural resource is any of the following:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
  - Included or determined to be eligible for inclusion in the California Register.

[4] *State CEQA Guidelines Section 15064.5(c)(4).*

  - Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

- 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 California Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. A historical resource described in California Public Resources Code Section 21084.1, a unique archaeological resource as defined in subdivision (g) of California Public Resources Code Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of California Public Resources Code Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.

(3) Local Level

(a) City of Rialto General Plan

The City of Rialto's General Plan (2010) discusses goals and policies to protect, preserve, and manage the City's archaeological and historical resources. The goals and policies are provided below:

Policy 7-1.1: Protect the architectural, historical, agricultural, open space, environmental, and archaeological resources in Rialto.

Goal 7-3: Identify, document, and protect significant archaeological resources in Rialto.

Policy 7-3.1: Require archaeological surveys during the development review process for all project s in archaeologically sensitive areas where no previous surveys are recorded.

Policy 7-3.2: Actively pursue a comprehensive survey program to identify, document, and protect prehistoric and historical archaeological sites and sites containing Native American human remains.

Policy 7-3.3: Avoid impacts to potentially significant prehistoric and historical archaeological resources and sites containing Native American human remains consistent with State law.

Policy 7-3.4: Reduce adverse impacts to significant archaeological resources that cannot be protected in place through data recovery excavations.

3. Environmental Impacts

a. Methodology

(1) Historical Resources

The analysis of historic resources is based on a cultural resources records search through CHRIS-SCCIC, historic background research, and a site visit to the Project Site, which are described in detail above.

(2) Archaeological Resources

The analysis of archaeological resources is based on a cultural resources records search through CHRIS-SCCIC, a SLF search conducted by the NAHC, review of historic aerial photographs, and a site visit to the Project Site, which are described in detail above. Since Project impacts are analyzed on a program-level, no formal eligibility evaluations of archaeological resources within the Project Site were conducted.

(3) Paleontological Resources

To develop a baseline paleontological resources inventory of the Project Site and surrounding area and to assess the potential paleontological productivity of each stratigraphic unit present, the published and available unpublished geological and paleontological literature was reviewed; and stratigraphic and paleontological inventories were compiled, synthesized, and evaluated by the staff of the SBCM. These methods are consistent with the Society of Vertebrate Paleontology (SVP) guidelines for assessing the importance of paleontological resources in areas of potential environmental effect. PCR also conducted a spot-check pedestrian survey of the Project Site to identify known resources and/or fossiliferous geological formations within the surveyed areas of Project Site. Since no known paleontological resources were identified on the surface within the Project Site, the research described above was conducted to assess the potential for the Project Site to contain buried paleontological resources.

(4) Tribal Cultural Resources

The City of Rialto has not received any formal written "request to consult" letters from Native American tribes or individuals pursuant to AB 52.

b. Thresholds of Significance

Appendix G of the CEQA Guidelines contains the Initial Study Environmental Checklist form used during preparation of the Project Initial Study, which is contained in Appendix A of this EIR. The Initial Study Environmental Checklist questions relating to cultural resources have been utilized as the thresholds of significance in this section. Accordingly, the Project may create a significant environmental impact if it would result in one or more of the following:

Threshold 1: Would cause a substantial adverse change in the significance of a historical resource as defined in §15064.5 (refer to Impact Statement CUL-1);

Threshold 2: Would cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 (refer to Impact Statement CUL-2);

Threshold 3: Would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature (refer to Impact Statement CUL-3);

Threshold 4: Would disturb any human remains, including those interred outside of formal cemeteries (refer to Impact Statement CUL-4); or

Threshold 5: Would cause a substantial adverse change in significance of a tribal cultural resource as defined in Public Resources Code Section 21074 (refer to Impact Statement CUL-5).

c. Project Design Features

No project design features are applicable to the cultural analysis below.

d. Project Impacts

(1) Historical Resources

Threshold CUL-1: A significant impact would occur if the Project would cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.

Impact Statement CUL-1: Implementation of the Project would not cause a substantial adverse change in the significance of a historical resource as defined in §15064.5. No impacts would occur in this regard.

Results of the records search revealed that five built environment historical resources have been recorded within a half-mile radius of the Project Site. These resources include an earthen irrigation ditch, a homestead (Micaleff family home), a postwar residential tract and commercial development (Muscoy No. 4), a water transportation feature, and a segment of the Union Pacific Railroad. None of these resources on or near the Project Site and would therefore not be impacted by the Project. Results of the site visit by PCR revealed the presence of several building foundations and a dry water reservoir located in the southeastern most corner of the Project Site. However, these resources are located within PA-4 which is owned by the West Valley Water District. No development associated with the Project would occur in PA-4; therefore, the Project would not impact this resource.

No additional built environment historic resources were identified during the spot check pedestrian survey of the Project Site. Moreover, review of aerial photographs of the Project Site reveals that there are no additional built environment historical resources within the Project Site. Therefore, the implementation of the Project or any future project -specific development proposals that are initiated under the Project would have no impact to historical resources.

(2) Archaeological Resources

Threshold CUL-2: A significant impact would occur if the Project would cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.

Impact Statement CUL-2: Implementation of the Project could cause a substantial adverse change in the significance of a archaeological resource as defined in §15064.5. This impact is considered potentially significant. However, implementation of the prescribed mitigation would reduce potentially significant impacts to archaeological resources to a less than significant level.

Results of the records search and site visit revealed that one historic period archaeological resource, P36-026760/CA-SBR-16908H, is located in the north-central portion of the Project Site on the eastern side of North Pepper Avenue. This resource consists of the remains of a historic period homestead that has been recommended by Jones et al. (2012b) as ineligible for listing in the California Register of Historical Resources. PCR supports the eligibility recommendation by Jones et al. (2012) since there are no intact features associated with the original homestead site that are still extant. As a result, the impacts to resource P36-026760/CA-SBR-16908H from the Project or future Project-specific development proposals initiated under the Project would not be considered a significant impact on the environmental and no additional work is necessary at this resource.

Since PCR conducted a spot check pedestrian survey of the Project Site, it is possible that there are additional archaeological resources within the Project Site that have yet to be discovered. Moreover, the Project Site is located within close proximity to a major water source (Lyle Creek) which attracted prehistoric and historic period inhabitants to the area who may have left remnants of their occupation. Review of historic aerial photographs reveals the historic period occupation of the Project Site as far back as 1938 and likely earlier. In addition, the record search results indicate that several historic period water control/management resources have been identified in close proximity to the Project Site and according to Mr. Andy Salas, the prehistoric Native American village of *Waatsnga* was located nearby. These factors demonstrate a moderate to high potential to encounter archaeological resources within the Project Site.

The Project would include significant ground-disturbing activities associated with future development proposals which could have a significant impact on both existing and unidentified archaeological resources within the Project Site. To mitigate such potential impacts, project-level surveys would need to be conducted to confirm if any previously unknown archaeological resources are located on individual development sites and if so, to verify their current condition, contents, and horizontal extent (across the surface); with appropriate treatment and/or preservation methods to be implemented, as necessary. These surveys and management practices are prescribed in Mitigation Measures CUL-1 to CUL-6 in subsection 4 below.

(3) Paleontological Resources

Threshold CUL-3: Would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Impact Statement CUL-3: Implementation of the Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. No impacts would occur in this regard.

No paleontological resources or fossiliferous geological units were identified during the site visit. The results of the paleontological records search indicate that the Project Site is located within surface exposures of Holocene-aged (11,000 YBP to present day) wash sediments that overlie Holocene-aged younger alluvium. These sediments are not old enough to have potential for yielding paleontological resources. Therefore, the implementation of the Project or any future project -specific development proposals that are initiated under the Project would have no impact to paleontological resources.

(4) Human Remains

Threshold CUL-4: Would disturb any human remains, including those interred outside of formal cemeteries.

Impact Statement CUL-4: Implementation of the Project could disturb human remains, including those interred outside of formal cemeteries. However, implementation of the prescribed mitigation would reduce potentially significant impacts to unknown human remains to a less than significant level.

As discussed earlier in this report, no known human remains have been identified from the CHRIS-SBAIC records within the Project Site or within the one-half mile buffer. Results of the SLF search through the NAHC also did not indicate known Native American cultural resources within the Project Site.

The site visit by ESA PCR did not reveal the presence of known human remains. Nonetheless, the Project Site is located within close proximity to a major water source (Lyle Creek) which would have attracted prehistoric and historic period inhabitants to the area who may have left remnants of their occupation. Review of historic aerial photographs reveals the historic period occupation of the Project Site as far back as 1938 and likely earlier. In addition, the record search results indicate that several historic period water control/management resources have been identified in close proximity to the Project Site and according to Mr. Andy Salas, the prehistoric Native American village of *Waatsnga* was located nearby. These factors demonstrate the moderate to high potential to encounter human remains within the Project Site; As a result, Mitigation Measures CUL-1 through CUL-3 are prescribed.

Moreover, future Project-specific development proposals that are initiated under the Project that require excavation activities could potentially impact previously unknown human remains. As a result, Mitigation Measure CUL-7 is recommended to reduce potentially significant impacts to previously unknown human remains that are unexpectedly discovered during excavations to a less than significant level.

(5) Tribal Cultural Resources

Threshold CUL-5: Would cause a substantial adverse change in significance of a tribal cultural resource as defined in Public Resources Code Section 21074.

Impact Statement CUL-5: Implementation of the Project could cause a substantial adverse change in the significance of a tribal resource as defined in Public Resources Code Section 21074. This impact is considered potentially significant. However, implementation of the prescribed mitigation would reduce potentially significant impacts to tribal cultural resources to a less than significant level.

The City of Rialto has not received any formal written "request to consult" letters from Native American tribes or individuals pursuant to AB 52. Nonetheless, the Project would include significant ground-disturbing activities associated with future development proposals which could have a significant impact unidentified tribal cultural resources within the Project Site. To mitigate such potential impacts, consultations with Native American tribes shall be initiated, if requested by the tribes; with appropriate treatment and/or preservation methods to be implemented, as necessary. This process is prescribed in Mitigation Measure CUL-8 in subsection 4 below.

(4) Consistency with Regulatory Framework

The Project with implementation of mitigation measures would comply with applicable State regulations regarding cultural resources. Furthermore, the Specific Plan would not conflict with applicable goals and policies contained in the City's General Plan regarding cultural resources, as discussed below in Table 4.D-1, Consistency of the Pepper Avenue Specific Plan with Cultural Resources Policies of the General Plan. As shown in Table 4.D-1, impacts related to consistency with the Rialto General Plan regarding cultural resources would be less than significant.

TABLE 4.D-1
CONSISTENCY OF THE PEPPER AVENUE SPECIFIC PLAN WITH CULTURAL RESOURCES POLICIES OF THE GENERAL PLAN

Goals/Policies	Evaluation of Consistency
Policy 7-1.1: Protect the architectural, historical, agricultural, open space, environmental, and archaeological resources in Rialto.	**Consistent.** As described in Mitigation Measures CUL-1 through CUL-7, measures are prescribed to identify, record, evaluate, and protect archaeological resources within the Project Site.
Goal 7-3: Identify, document, and protect significant archaeological resources in Rialto.	**Consistent.** As described in Mitigation Measure CUL-1 through CUL-7, measures are prescribed to identify, record, evaluate, and protect archaeological resources within the Project Site.
Policy 7-3.1: Require archaeological surveys during the development review process for all project s in archaeologically sensitive areas where no previous surveys are recorded.	**Consistent.** As described in Mitigation Measure CUL-1, archaeological surveys are required in areas of the Project Site that have not been surveyed previously, or an extended amount of time has passed since a prior survey was conducted.
Policy 7-3.2: Actively pursue a comprehensive survey program to identify, document, and protect prehistoric and historical archaeological sites and sites containing Native American human remains.	**Consistent.** As described in Mitigation Measure CUL-1 through CUL-7, measures are prescribed to identify, record, evaluate, and protect archaeological resources and human remains within the Project Site.
Policy 7-3.3: Avoid impacts to potentially significant prehistoric and historical archaeological resources and sites containing Native American human remains consistent with State law.	
Policy 7-3.4: Reduce adverse impacts to significant archaeological resources that cannot be protected in place through data recovery excavations.	**Consistent.** As described in Mitigation Measure CUL-3, data recovery excavations are prescribed as an option to reduce adverse impacts to significant archaeological resources that cannot be protected in place.

SOURCE: ESA PCR, 2016.

e. Cumulative Impacts

Chapter 3, Basis for Cumulative Analysis, of this EIR describes planned or recent related projects near the Project Site. Figure 3-1, *Related Projects Map*, illustrates the locations of all related projects. Related projects, in combination with the Project, have the potential to contribute to, or generate, cumulative impacts.

(1) Historical Resources

Many of the cumulative projects identified in Chapter 3would require demolition and excavation activities that could potentially expose or damage potential historical resources. However, in association with CEQA review, mitigation measures would be required for projects that have the potential to cause significant impacts to historical resources. Implementation of such mitigation measures would avoid significant impacts. Regardless, the Project would result in no impacts to historic resources. Therefore, it would not contribute to cumulative historic resources impacts.

(2) Archaeological Resources

Many of the cumulative projects identified in Chapter 3 would require excavation that could potentially expose or damage potential archaeological resources. However, these cumulative projects are primarily located in developed areas with sites that have been previously disturbed, and the potential to encounter and cause a significant impact on surface resources is unlikely. Further, in association with CEQA review, and depending on the depth of excavation and sensitivity of respective sites, mitigation measures would be required for projects that have the potential to cause significant impacts to undiscovered resources. Implementation of such mitigation measures would avoid significant impacts. State requirements regarding impacts on archaeological resources and CEQA compliance require monitoring of excavation activities and treatment and/or curation of discovered resources where appropriate (CEQA Section 21083.2 and State *CEQA Guidelines* Section 15064.5). Such standard construction practices, particularly over a range of project sites, provide for protection, recovery and curation of discovered resources and preserve their contributions to the knowledge base of past population activity in the area. For those projects not subject to CEQA review, there would be some potential for impacts on archaeological resources in the event there are excavations that extend into native soils. Therefore, the cumulative effects from cumulative projects are considered potentially significant.

The Project is required to comply with Mitigation Measures CUL-1 through CUL-6 which require additional studies at the Project Site and regulations cited above in the event resources are found, thus ensuring proper identification, treatment and preservation of any resources, and reducing significant impacts on archaeological resources to less than significant levels. These regulations require excavation monitoring, and treatment and curation of discoveries. Therefore, to the extent impacts on archaeological resources from cumulative projects may occur, further contribution from the Project would not be cumulatively considerable, and the cumulative impacts of the Project would be less than significant.

(3) Paleontological Resources

While cumulative projects would involve excavation in the Project vicinity with the potential to encounter paleontological resources, they would be expected to implement standard mitigation measures to avoid adverse effects on paleontological resources. Such measures would include a monitoring program and treatment/curation of discovered fossils. Further, the Project Site is located within surface exposures of Holocene-aged (11,000 YBP to present day) wash sediments that overlie Holocene-aged younger alluvium. These sediments are not old enough to have potential for yielding paleontological resources. Therefore, the implementation of the Project or any future Project-specific development proposals that are initiated under the Project would have no impact to paleontological resources nor would any cumulative impacts to paleontological resources occur.

(4) Human Remains

The Project is required to comply with Mitigation Measure CUL-7 and regulations cited above in the event resources are found, thus ensuring proper identification, treatment and preservation of any resources, and reducing significant impacts on human remains to less than significant levels. These regulations require excavation monitoring, and treatment and curation of discoveries.

Therefore, to the extent impacts on human remains resources from cumulative projects may occur, further contribution from the Project would not be cumulatively considerable, and the cumulative impacts of the Project would be less than significant.

(5) Tribal Cultural Resources

No known tribal cultural resources have been identified in the Project Site or nearby vicinity to date. In association with CEQA review, future AB 52 consultations with Native American tribes could identify tribal cultural resources. Mitigation measures would be required for projects that have the potential to cause significant impacts to known or undiscovered tribal cultural resources and the implementation of such mitigation measures would avoid significant impacts. Further, the Project is required to comply with Mitigation Measure CUL-8 which requires additional consultations with Native American groups regarding the identification of tribal cultural resources, if requested. Therefore, to the extent impacts on tribal cultural resources from cumulative projects may occur, further contribution from the Project would not be cumulatively considerable, and the cumulative impacts of the Project would be less than significant.

4. Mitigation Measures

a. Archaeological Resources

Mitigation Measure CUL-1: Conduct Phase I Archaeological Resources Assessments. For specific development proposals that are initiated under the Project that require excavation (e.g., clearing/grubbing, grading, trenching, or boring) or demolition activities, the City shall require Phase I Archaeological Resources Assessments on a project-by-project basis within the Specific Plan area to identify any archaeological resources within the footprint or immediate vicinity. The level of effort for a Phase I assessment shall include a Sacred Lands File search through the California Native American Heritage Commission (NAHC) and a full-coverage pedestrian survey of the Project Site. In addition, the assessment shall include a review available geotechnical studies, site plans, and drilling/grading studies to determine the nature and depth of the construction activities to assist in determining the depths of fill versus native soils across the improvement footprint. If no resources are identified as a result of the pedestrian survey, it does not preclude the existence of buried resources within the improvement footprint. If this is the case, a qualified archaeologist shall determine the potential for the Project to encounter buried resources during construction based on the results of the record searches, depth of native versus fill soils, and proposed excavation parameters.

The following scenarios shall be followed depending on the results of the Phase I assessment:

- If resources are identified during the Phase I assessment, then a Phase II evaluation shall be required, as described in CULT-2.
- If no resources are identified as part of the assessment, no further analyses or mitigation shall be warranted, unless it can be determined that the Project has a moderate to high potential to encounter buried archaeological resources.
- If it is determined that there is a moderate or high potential to encounter buried archaeological resources, appropriate mitigation such as archaeological and/or Native

American construction monitoring construction monitoring shall be required as described in CULT-4, -5, and -6.

Mitigation Measure CUL-2: Conduct a Phase II Archaeological/ Resources Evaluation. If resources are identified during the Phase I assessment, a Phase II Archaeological Resources Evaluation may be warranted if impacts from the improvements cannot be avoided. The Phase II assessment shall evaluate the resource(s) for listing in the California Register and to determine whether the resource qualifies as a "unique archaeological resource" pursuant to CEQA. If enough data is obtained from the Phase I assessment to conduct a proper evaluation, a Phase II evaluation may not be necessary. Methodologies for evaluating a resource can include, but are not limited to: subsurface archaeological test excavations, additional background research, property history research, and coordination with Native Americans and other interested individuals in the community.

Mitigation Measure CUL-3: Conduct a Phase III Assessment if Resources are Eligible. If, as a result of the Phase II evaluation, resources are determined eligible for listing in the California Register or are considered "unique archaeological resources" pursuant to Section 21083.2 of the Public Resources Code, potential impacts to the resources shall be analyzed and if impacts are significant (i.e., the improvement will cause a "substantial adverse change" to the resource) and cannot be avoided, mitigation measures shall be developed and implemented, such as archaeological data recovery excavations to reduce impacts to the resources to a level that is less than significant.

Mitigation Measure CUL-4: Conduct Archaeological and Native American Construction Monitoring. If it is determined by the qualified archaeologist preparing the Phase I Archaeological Resources Assessment that: 1) there is a moderate or high potential to encounter buried archaeological resources; and 2) that construction monitoring is required during construction excavations such as clearing/grubbing, grading, trenching, or any other construction excavation activity associated with the proposed improvements, then the City shall require future development/Project applicants on a project-by-project basis within the Specific Plan area to retain a qualified archaeological monitor and/or Native American monitor who shall be present during construction excavation activities.

The frequency of monitoring shall be based on the rate of excavation and grading activities, proximity to known archaeological resources, the materials being excavated (native versus fill soils), and the depth of excavation, and if found, the abundance and type of archaeological resources encountered. Full-time monitoring can be reduced to part-time inspections if determined adequate by the archaeological monitor.

Mitigation Measure CUL-5: **Cease Ground-Disturbing Activities and Implement Treatment Plan if Archaeological Resources Are Encountered.** In the event that archaeological resources are unearthed during ground-disturbing activities, the archaeological monitor shall be empowered to halt or redirect ground-disturbing activities away from the vicinity of the find so that the find can be evaluated. Work shall be allowed to continue outside of the vicinity of the find. All archaeological resources unearthed by Project construction activities shall be evaluated by the archaeologist. The Applicant and City shall coordinate with the archaeologist and Native American monitor (if the resources are prehistoric in age) to develop an appropriate treatment plan for the resources. Treatment may include implementation of archaeological data recovery

excavations to remove the resource or preserve it in place. The Applicant, in consultation with the archaeologist and Native American monitor (if the resources are prehistoric in age), shall designate repositories in the event that archaeological material is recovered.

Mitigation Measure CUL-6: Prepare Archaeological Monitoring Report. The archaeological monitor shall prepare a final report at the conclusion of archaeological monitoring. The report shall be submitted to the City and the San Bernardino Archaeological Information Center, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the Project and required mitigation measures. The report shall include a description of resources unearthed, if any, evaluation of the resources with respect to the California Register of Historical Resources and CEQA, and treatment of the resources.

b. Human Remains

Mitigation Measure CUL -7: C**ease Ground-Disturbing Activities and Notify County Coroner If Human Remains Are Encountered.** If human remains are unearthed during construction exaction activities, the construction contractor shall comply with State Health and Safety Code Section 7050.5. The contractor and Project applicant shall immediately notify the County Coroner and no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the NAHC. The NAHC shall then identify the person(s) thought to be the Most Likely Descendent (MLD). The MLD may, with the permission of the landowner, inspect the site of the discovery of the Native American remains and may recommend to the landowner means for treating or disposing, with appropriate dignity, the human remains and any associated funerary objects. The MLD shall complete their inspection and make their recommendation within 48 hours of being granted access by the landowner to inspect the discovery. The recommendation may include the scientific removal and nondestructive analysis of human remains and cultural items associated with Native American burials. Upon the discovery of the Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this mitigation measure, with the MLD regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment. MLDs in the region typically recommend reburial of the remains as close to the original burial location as feasible accompanied by a ceremony. The MLD shall file a record of the reburial with the NAHC and the Project archaeologist shall file a record of the reburial with the CHRIS-SBAIC.

If the NAHC is unable to identify a MLD, or the MLD identified fails to make a recommendation, or the landowner rejects the recommendation of the MLD and the mediation provided for in Subdivision (k) of Section 5097.94, if invoked, fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall inter the human remains and items associated with Native American human remains with appropriate dignity on the facility property in a location not subject to further and future subsurface disturbance. A record of the reburial shall be filed with the NAHC and the CHRIS-SBAIC.

c. Tribal Cultural Resources

Mitigation Measure CUL-8: If a tribe formally requests, in writing, to be notified of future specific development proposals that are initiated under the Project, the City shall begin AB 52 consultations with those particular tribes for all future development proposals within the Project Site. The purpose of those consultations would be to identify, evaluate, and mitigate impacts to tribal cultural resources from a given development proposal.

5. Level of Significance After Mitigation

a. Historic Resources

Not applicable. No impacts would to historic resources.

b. Archaeological Resources

With implementation of the mitigation measures above, the Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the State *CEQA Guidelines*. The implementation of the prescribed mitigation measures provide for appropriate treatment and/or preservation of resources if encountered. Potentially significant impacts to archaeological resources would be reduced to a less than significant level.

c. Paleontological Resources

Not applicable. As the sediments within the Project Site are not old enough to have potential for yielding paleontological resources, no mitigation measures are required. Therefore, the Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

d. Human Remains

With implementation of the mitigation measures above, the Project would not disturb any human remains, including those interred outside of formal cemeteries. The implementation of the above mitigation measures provide for appropriate treatment and/or preservation of resources if encountered. Potentially significant impacts to human remains would be reduced to a less than significant level.

e. Tribal Cultural Resources

With implementation of the prescribed mitigation above, the Project would not cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074. The implementation of the prescribed mitigation measure would provide for appropriate treatment and/or preservation of resources if encountered. Potentially significant impacts to tribal cultural resources would be reduced to a less than significant level.

6. References

Bean and Smith, 1978a. Gabrielino. In *California*, edited by R. F. Heizer, pp. 538-549. Handbook of North American Indians. Vol. 8, William C. Sturtevant, general editor, Smithsonian Institution, Washington, DC.

_____.1978b. Serrano. In *California*, edited by R. F. Heizer, pp. 570-574. Handbook of North American Indians. Vol. 8, William C. Sturtevant, general editor, Smithsonian Institution, Washington, DC.

Chartkoff and Chartkoff, 1984. *The Archaeology of California*. Menlo Park: Stanford University Press.

City of Rialto, 2010. *City of Rialto General Plan*. Adopted December 2010. Accessed online at: http://www.ci.rialto.ca.us/documents/downloads/General_Plan_Update_2010.pdf, July 2014.

Dice et al. 2004. Extended Cultural Resource Survey and Architecture Evaluation of Site CA-SBR-6706H within the Project Footprint of the Lytle Creek North Tentative Tract Map (Map #15900), County of San Bernardino, California. Prepared for Lytle Development Company. Michael Brandman and Associates, July 15, 2004. Unpublished report on file at CHRIS-SBAIC, Redlands, CA.

Dice, 2005. Final Phase I Cultural Resources Survey Report for the Pepper Street Specific Plan, City of Rialto, San Bernardino County, California. Report on file at the San Bernardino Archaeological Information Center.

_____ 2008. Cultural Resource Survey, Cultural Resource Significant Assessment, and Paleontological Records Review, North Pepper Avenue Extension Project , City of Rialto, San Bernardino County, California. Report on file at the San Bernardino Archaeological Information Center.

George, 2009. Site Form for 36-021326. On file at the San Bernardino Archaeological Information Center.

Grenda, 1997. Continuity and Change: 8,500 Years of Lacustrine Adaptation on the Shores of Lake Elsinore. Technical Series 59. Statistical Research, Inc., Tucson.

Heizer, 1978. *California*. Handbook of North American Indians, Vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Jones et al., 2012a. *Cultural Resources Inventory for the Pepper Avenue Extension Project in the City of Rialto, San Bernardino County, California.* On file at the San Bernardino Archaeological Information Center.

Jones et al., 2012b. Site form for CA-SBR-16908H/36-026760. On file at the San Bernardino Archaeological Information Center.

Kowta, 1969. The Sayles Complex: A Late Milling Stone Assemblage from the Cajon Pass and the Ecological Implications of its Scraper Planes. Berkeley: *University of California Publications in Anthropology 6*.

L. D. King, Inc., 2001. *Draft* Environmental *Impact Report for the Lytle Creek North Planned Development Project* . SCH No. 99051013, Volume I. Report Prepared for Lytle Creek Land and Resources. Lead agency: County of San Bernardino Land Use Services Department, Planning Division.

Moratto, 1984. California *Archaeology*. Academic Press, San Diego.

Morris and Erlandson, 1993. 9,500 Year-Old Human Burial from CA-SRI-116, Santa Rosa Island. *Journal of California and Great Basin Anthropology* 15(1):129-134.

SBAIC pending site, n.d. P1071-8H/Brooke School. Pending site sheet on file at the San Bernardino Archaeological Information Center.

Scott, 2014 . Paleontology Literature and Records Review, Pepper Avenue Specific Plan Project , City of Rialto, San Bernardino County, California. Report on file at PCR Services Corporation, Irvine, CA.

Wormer and Langenwalter, 1990. *Lytle Creek Wash Archaeological Survey.* Archaeological Resource Management Corp., January 9, 1990.

Wallace, 1955. A Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology* 11(3):214-230.

Warren, 1968. Cultural Tradition and Ecological Adaptation on the Southern California Coast. In Archaic Prehistory in the Western United States, C. Irwin-Williams, ed, pp. 1-4. *Eastern New Mexico University* Contributions *in Anthropology*. Portales.

E. Greenhouse Gas Emissions

1. Introduction

This section describes applicable Federal, State, and local regulations that address greenhouse gas (GHG) emissions and global climate change in California and the City of Rialto. Existing climate conditions and influences on global climate change are also described, and an analysis is provided to assess potential cumulative and project related contributions to global climate change. The analysis accounts for energy and resource conservation measures that have been incorporated into the Specific Plan Project and pertinent State mandated GHG emission reduction measures. GHG emission calculations prepared for the Project are provided in Appendix A-1 of the *Greenhouse Gas Emissions Technical Report*.

2. Environmental Setting

Global climate change refers to changes in average climatic conditions on Earth as a whole, including changes in temperature, wind patterns, precipitation and storms. Historical records indicate that global climate changes have occurred in the past due to natural phenomena; however current data increasingly indicate that the current global conditions differ from past climate changes in rate and magnitude. Global climate change attributable to anthropogenic (i.e., human) GHG emissions is currently one of the most important and widely debated scientific, economic and political issues in the United States and the world. The extent to which increased concentrations of GHGs have caused or will cause climate change and the appropriate actions to limit and/or respond to climate change are the subject of significant and rapidly evolving regulatory efforts at the federal and state levels of government.

GHGs are those compounds in the Earth's atmosphere which play a critical role in determining temperature near the Earth's surface. More specifically, these gases allow high-frequency shortwave solar radiation to enter the Earth's atmosphere, but retain some of the low frequency infrared energy which is radiated back from the Earth towards space, resulting in a warming of the atmosphere.

Not all GHGs possess the same ability to induce climate change; therefore, GHG contributions are commonly quantified in the units of equivalent mass of carbon dioxide (CO_2e), as carbon dioxide (CO_2) is the most abundant GHG in the atmosphere. Mass GHG emissions are calculated by converting pollutant specific emissions to CO_2e emissions by applying the proper global warming potential (GWP) value, tabulated in metric tons per year (IPCC, 1996). These GWP ratios are available from the Intergovernmental Panel on Climate Change (IPCC). Historically, GHG emission inventories have been calculated using the GWPs from the IPCC's Second Assessment Report (SAR). The IPCC updated the GWP values based on the latest science in its Fourth Assessment Report (AR4). The updated GWPs in the IPCC AR4 have begun to be used in recent GHG emissions inventories. Typically, the GWP ratio corresponding to the warming potential of CO_2 over a 100-year period is used as a baseline. The CO_2e values are calculated for construction years as well as existing and Project build-out conditions in order to generate a net

change in GHG emissions for construction and operation. Compounds that are regulated as GHGs are discussed below.

Carbon Dioxide (CO_2): CO_2 is the most abundant GHG in the atmosphere and is primarily generated from fossil fuel combustion from stationary and mobile sources. CO_2 is the reference gas (GWP of 1) for determining the GWPs of other GHGs.

Methane (CH_4): CH_4 is emitted from biogenic sources (i.e., resulting from the activity of living organisms), incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. The GWP of CH_4 is 25 in the IPCC AR4.

Nitrous Oxide (N_2O): N_2O produced by human-related sources including agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The GWP of N_2O is 298 in the IPCC AR4.

a. Existing Conditions

(1) Greenhouse Gas Inventory

Worldwide, annual man-made emissions of GHGs totaled approximately 49,000 million metric tons (MMT) CO_2e including ongoing emissions from industrial and agricultural sources and emissions from land use changes (e.g., deforestation) (IPCC, 2014). CO_2 emissions from fossil fuel use and industrial processes accounts for 65 percent of the total, while CO_2 emissions from all sources accounts for 76 percent of the total. CH_4 emissions account for 16 percent and N_2O emissions for 6.2 percent. In 2013, the United States was the world's second largest emitter of CO_2 at 5,300 MMT (China was the largest emitter of CO_2 at 10,300 MMT) (PBL Netherlands, 2014).

The California Air Resources Board (CARB) compiles GHG inventories for the State of California. Based on the 2014 GHG inventory data (i.e., the latest year for which data are available from CARB), California emitted 441.5 MMT CO_2e including emissions resulting from imported electrical power and 406.2 MMT CO_2e excluding emissions related to imported power (CARB, 2016). Between 1990 and 2015, the population of California grew by approximately 9.3 million (from 29.8 to 39.1 million) (U.S. Census Bureau, 2015). This represents an increase of approximately 31.2 percent from 1990 population levels. In addition, the California economy, measured as gross state product, grew from $773 billion in 1990 to $2.46 trillion in 2015 representing an increase of approximately 218 percent (California Department of Finance, 2015). Despite the population and economic growth, California's net GHG emissions only grew by approximately 4 percent between 1990 and 2014. The California Energy Commission (CEC) attributes the slow rate of growth to the success of California's renewable energy programs and its commitment to clean air and clean energy (CEC, 2006). **Table 4.E-1**, *State of California Greenhouse Gas Emissions,* identifies and quantifies statewide anthropogenic GHG emissions and sinks (e.g., carbon sequestration due to forest growth) in 1990 and 2014 (i.e., the most recent year in which data are available from CARB). As shown in Table 4.E-1, the transportation sector is the largest contributor to statewide GHG emissions at 37 percent in 2014.

TABLE 4.E-1
STATE OF CALIFORNIA GREENHOUSE GAS EMISSIONS

Category	Total 1990 Emissions using IPCC SAR ($MMTCO_2e$)	Percent of Total 1990 Emissions	Total 2014 Emissions using IPCC AR4 ($MMTCO_2e$)	Percent of Total 2014 Emissions
Transportation	150.7	35%	159.5	37%
Electric Power	110.6	26%	88.2	20%
Commercial	14.4	3%	13.6	5%
Residential	29.7	7%	24.7	6%
Industrial	103.0	24%	93.3	24%
Recycling and Waste [a]	–	–	8.9	2%
High GWP/Non-Specified [b]	1.3	<1%	17.2	4%
Agriculture/Forestry	23.6	6%	36.1	8%
Forestry Sinks	-6.7		-- [c]	--
Net Total (IPCC SAR)	**426.6**	**100%**	--	--
Net Total (IPCC AR4) [d]	**431**	**100%**	**441.5**	**100%**

[a] Included in other categories for the 1990 emissions inventory.
[b] High GWP gases are not specifically called out in the 1990 emissions inventory.
[c] Revised methodology under development (not reported for 2013).
[d] CARB revised the State's 1990 level GHG emissions using GWPs from the IPCC AR4.

Sources: California Air Resources Board, Staff Report – California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit, (2007); California Air Resources Board, "California Greenhouse Gas 2000-2014 Inventory by Scoping Plan Category – Summary," http://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed August 2016.

b. Regulatory Framework

(1) Federal

The United States Environmental Protection Agency (USEPA) is responsible for implementing federal policy to address GHGs. The federal government administers a wide array of public-private partnerships to reduce the GHG intensity generated in the United States. These programs focus on energy efficiency, renewable energy, methane and other non-CO_2 gases, agricultural practices, and implementation of technologies to achieve GHG reductions. The USEPA implements numerous voluntary programs that contribute to the reduction of GHG emissions. These programs (e.g., the Energy Star labeling system for energy-efficient products) play a significant role in encouraging voluntary reductions from large corporations, consumers, industrial and commercial buildings, and many major industrial sectors.

(2) State

California has promulgated a series of executive orders, laws, and regulations aimed at reducing both the level of GHGs in the atmosphere and emissions of GHGs from commercial and private activities within the State.

a. California Air Resources Board

CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, CARB conducts research, sets the California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB has primary responsibility for the development of California's State Implementation Plan, for which it works closely with the federal government and the local air districts. The State Implementation Plan is required for the State to take over implementation of the federal Clean Air Act.

b. Executive Order S-3-05

California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following GHG emission reduction targets:

- By 2010, California shall reduce GHG emissions to 2000 levels;
- By 2020, California shall reduce GHG emissions to 1990 levels; and
- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels.

The Secretary of CalEPA is required to coordinate efforts of various agencies in order to collectively and efficiently reduce GHGs. Representatives from these agencies comprise the California Climate Action Team (CAT). The CAT provides biennial reports to the Governor and Legislature on the state of GHG reductions in the state as well as strategies for mitigating and adapting to climate change. The first CAT Report to the Governor and the Legislature in 2006 contained recommendations and strategies to help meet the targets in Executive Order S 3-05 (CalEPA, 2006). The 2010 CAT Report, finalized in December 2010, expands on the policy oriented 2006 assessment. The new information detailed in the CAT Report includes development of revised climate and sea-level projections using new information and tools that have become available in the last two years; and an evaluation of climate change within the context of broader social changes, such as land-use changes and demographic shifts.

c. Executive Order B-30-15

California Governor Edmund G. Brown issued on April 29, 2015, through Executive Order B-30-15, the following GHG emission reduction target:

- By 2030, California shall reduce GHG emissions to 40 percent below 1990 levels.

Executive Order B-30-15 represents the most aggressive emissions reduction benchmark by any government in North America. Executive Order B-30-15 aligns California's greenhouse gas reduction targets with those of leading international governments of the United Nations Climate Change Conference in Paris in December 2015.

d. California Assembly Bill 32 (AB 32, Nunez) (Chapter 488, Statutes of 2006)

In 2006, the California State Legislature adopted Assembly Bill (AB) 32 (Chapter 488, Statutes of 2006), the California Global Warming Solutions Act of 2006, focusing on reducing GHG emissions in California to 1990 levels by 2020. As required by AB 32, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions limit for 2020. The 2020 emissions limit was originally set at 427 MMT CO_2e using the GWP values from the IPCC SAR. CARB also projected the state's 2020 GHG emissions under business-as-usual (BAU) conditions – that is, emissions that would occur without any plans, policies, or regulations to reduce GHG emissions. CARB originally used an average of the state's GHG emissions from 2002 through 2004 and projected the 2020 levels at approximately 596 $MMTCO_2e$ (using GWP values from the IPCC SAR). Therefore, under the original projections, the state must reduce its 2020 BAU emissions by 28.4 percent in order to meet the 1990 target of 427 $MMTCO_2e$. In 2014, CARB revised the target using the GWP values from the IPCC AR4 and determined that the 1990 GHG emissions inventory and 2020 GHG emissions limit is 431 $MMTCO_2e$. CARB also updated the State's 2020 BAU emissions estimate to account for the effect of the 2007–2009 economic recession, new estimates for future fuel and energy demand, and the reductions required by regulation that were recently adopted for motor vehicles and renewable energy. CARB's revised 2020 BAU emissions estimate using the GWP values from the IPCC AR4 is 509.4 $MMTCO_2e$. Therefore, the emission reductions necessary to achieve the 2020 emissions target of 431 $MMTCO_2e$ would be 78.4 $MMTCO_2e$, or a reduction of GHG emissions by approximately 15.4 percent. A summary of the GHG emissions reductions required under AB 32 is provided in **Table 4.E-2**, *Estimated Greenhouse Gas Emissions Reductions Required by AB 32*.

TABLE 4.E-2
ESTIMATED GREENHOUSE GAS EMISSIONS REDUCTIONS REQUIRED BY AB 32

Emissions Category	GHG Emissions ($MMTCO_2e$)
2008 Scoping Plan (IPCC SAR)	
2020 BAU Forecast (CARB 2008 Scoping Plan Estimate)	596
2020 Emissions Target Set by AB 32 (i.e., 1990 level)	427
Reduction below Business-As-Usual necessary to achieve 1990 levels by 2020	**169 (28.4%)** [a]
2011 Scoping Plan (IPCC AR4)	
2020 BAU Forecast (CARB 2011 Scoping Plan Estimate)	509.4
2020 Emissions Target Set by AB 32 (i.e., 1990 level)	431
Reduction below Business-As-Usual necessary to achieve 1990 levels by 2020	**78.4 (15.4%)** [b]

$MMTCO_2e$ = million metric tons of carbon dioxide equivalents

[a] 596 – 427 = 169 / 596 = 28.4%

[b] 509.4 – 431 = 78.4 / 509.4 = 15.4%

Source: California Air Resources Board, Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document (FED), Attachment D, August 19, 2011; California Air Resources Board, 2020 Business-as-Usual (BAU) Emissions Projection, 2014 Edition, http://www.arb.ca.gov/cc/inventory/data/bau.htm. Accessed November 2015.

AB 32 defines GHGs as CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6 and represents the first enforceable statewide program to limit emissions of these GHGs from all major industries with penalties for noncompliance. The law further requires that reduction measures be technologically feasible and cost effective. Under AB 32, CARB has the primary responsibility for reducing GHG emissions. CARB is required to adopt rules and regulations directing state actions that would achieve GHG emissions reductions equivalent to 1990 statewide levels by 2020.

e. California Assembly Bill No. 1493 (AB 1493, Pavley), (Chapter 200, Statutes of 2002)

In response to the transportation sector accounting for more than half of California's CO_2 emissions, AB 1493 (Chapter 200, Statutes of 2002), enacted on July 22, 2002, required CARB to set GHG emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is non-commercial personal transportation manufactured in and after 2009. In setting these standards, CARB must consider cost effectiveness, technological feasibility, economic impacts, and provide maximum flexibility to manufacturers.

However, as discussed previously, the USEPA and United States Department of Transportation (USDOT) have adopted federal standards for model year 2012 through 2016 light-duty vehicles. In light of the USEPA and USDOT standards, California has agreed to defer to the proposed national standard through model year 2016. The 2016 endpoint of the federal and state standards is similar, although the federal standard ramps up slightly more slowly than required under the state standard. The state standards (called the Pavley standards) require additional reductions in CO_2 emissions beyond model year 2016 (referred to as Pavley Phase II standards). On November 15, 2012, CARB approved an amendment that allows manufacturers to comply with the 2017-2025 national standards to meet state law.

f. Executive Order S-01-07

Executive Order S-01-07 was enacted by the Governor on January 18, 2007. The order mandates the following: (1) that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020; and (2) that a Low Carbon Fuel Standard (LCFS) for transportation fuels be established in California.

g. Senate Bill 97 (SB 97, Dutton) (Chapter 185, Statutes of 2007)

Senate Bill (SB) 97 (Chapter 185, Statutes of 2007), enacted in 2007, amended CEQA to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. It directed the California Office of Planning and Research to develop revisions to the State CEQA Guidelines "for the mitigation of GHG emissions or the effects of GHG emissions" and directed the Resources Agency to certify and adopt these revised State CEQA Guidelines by January 2010.

h. Senate Bill 375 (SB 375, Steinberg) (Chapter 728, Statutes of 2008)

SB 375 (Chapter 728, Statutes of 2008), which establishes mechanisms for the development of regional targets for reducing passenger vehicle greenhouse gas emissions, was adopted by the State on September 30, 2008. Under SB 375, CARB is required, in consultation with each Metropolitan Planning Organization (MPO) in the State, to set regional GHG reduction targets for

the passenger vehicle and light-duty truck sector for 2020 and 2035. The Southern California Association of Governments (SCAG) is the designated MPO under federal law and Regional Transportation Planning Agency under state law for the County of San Bernardino. As a result, San Bernardino County is subject to the GHG reduction requirements of SB 375.

i. Title 24, Building Standards Code and CALGreen Code

The CEC first adopted the Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard.

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards (CALGreen) Code. In early 2013 the California Building Standards Commission adopted the 2013 California Building Standards Code that also included the latest 2013 CALGreen Code. The mandatory provisions of the code are anticipated to reduce 3 MMT of GHG emissions by 2020, reduce water use by 20 percent or more, and divert 50 percent of construction waste from landfills. The 2013 California Energy Code (Title 24, Part 6), which is also part of the CALGreen Code (Title 24, Part 11, Chapter 5.2), became effective on July 1, 2014. The 2016 California Energy Code is currently under review and the updated version will be effective on January 1, 2017.

j. Renewables Portfolio Standard

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008, Governor Schwarzenegger signed Executive Order S-14-08, which expands the State's Renewables Portfolio Standard to 33 percent renewable power by 2020. Pursuant to Executive Order S-21-09, CARB was also preparing regulations to supplement the Renewables Portfolio Standard with a Renewable Energy Standard that will result in a total renewable energy requirement for utilities of 33 percent by 2020. But on April 12, 2011, Governor Jerry Brown signed SB X1-2 to increase California's RPS to 33 percent by 2020. SB 350 (Chapter 547, Statues of 2015), signed into law on October 7, 2015, further increased the Renewables Portfolio Standard to 50 percent by 2030. The legislation also included interim targets of 40 percent by 2024 and 45 percent by 2027.

(3) Local

a. SCAQMD

As a method for determining significance under CEQA, SCAQMD developed a draft tiered flowchart in 2008 for determining significance thresholds for GHGs for industrial projects where SCAQMD is acting as the lead agency. In December 2008, SCAQMD adopted a 10,000 $MTCO_2e$/year for industrial facilities, but only with respect to projects where SCAQMD is the

lead agency. SCAQMD has not adopted a CEQA significance threshold, interim or otherwise, for GHG emissions associated with residential/commercial development, such as the Project.

b. County of San Bernardino General Plan

The County of San Bernardino's General Plan does not contain a Greenhouse Gas Element nor a Climate Change Element, however one policy related to Greenhouse Gasses is discussed in the Air Quality Element:

Policy CO 4.13: Reduce Greenhouse Gas (GHG) emissions within the County boundaries.

Programs:

1. Emission Inventories. The County will prepare GHG emissions inventories including emissions produced by: (1) the County's operational activities, services and facilities, over which the County has direct responsibility and control, and (2) private industry and development, that is located within the area subject to the County's discretionary land use authority.
   a) Establish an inventory of existing GHG emissions.
   b) Establish a projected inventory for year 2020.
2. GHG Emissions Reduction Plan. The County will adopt a GHG Emissions Reduction Plan that includes:
   a) Measures to reduce GHG emissions attributable to the County's operational activities, services and facilities, over which the County has direct responsibility and control; and,
   b) Measures to reduce GHG emissions produced by private industry and development that is located within the area subject to the County's discretionary land use authority and ministerial building permit authority; and,
   c) Implementation and monitoring procedures to provide periodic review of the plan's progress and allow for adjustments over time to ensure fulfillment of the plan's objectives.

c. San Bernardino County Regional Greenhouse Gas Reduction Plan

In response to initiatives for the reduction of GHG emissions, a partnership led by the San Bernardino Associated Governments, in cooperation with 21 cities within the County (including the City of Rialto), compiled an inventory of GHG emissions and provided an evaluation of reduction measures that could be adopted by the 21 Partnership Cities of San Bernardino County called the San Bernardino County Regional Greenhouse Gas Reduction Plan (SBC Reduction Plan). Published in March 2014, the SBC Reduction Plan includes a comprehensive analysis and inventory of GHG emissions within the unincorporated County areas and emissions from County government operations within municipalities, 2020 forecasted emissions, a set of reduction measures used to reduce 2020 emission levels down to the reduction targets for the County, and a

monitoring and updating framework designed to keep the County on track toward achieving the reduction targets.

Each of the 21 partnership cities participating in the SBC Reduction Plan has adopted a series of city-specific GHG reduction measures in order to meet each individual city's reduction goal. The reduction measures adopted by each city, such as the City of Rialto, are incorporated into the SBC Reduction Plan to serve as a foundation upon which each individual jurisdiction may decide to develop its own customized and comprehensive climate action plan. San Bernardino Associated Governments (SANBAG) anticipates that individual cities may choose to use the plan to complete and adopt their own climate action plans with individual programs and policies tailored to each city's needs.

d. City of Rialto General Plan

The City of Rialto's General Plan goals and policies that are applicable to GHG reductions and climate change are as follows:

Goal 2-38: Mitigate against climate change.

Policy 2-38.1: Consult with State agencies, SCAG, and the SANBAG to implement AB 32 and SB 375 by utilizing incentives to facilitate infill and transit-oriented development.

Policy 2-38.2: Encourage development of transit-oriented and infill development, and encourage a mix of uses that foster walking and alternative transportation in Downtown and along Foothill Boulevard.

Policy 2-38.3: Provide enhanced bicycling and walking infrastructure, and support public transit, including public bus service, the Metrolink, and the potential for Bus Rapid Transit (BRT).

Policy 2-38.4: The City shall participate in the San Bernardino Regional Greenhouse Inventory and Reduction Plan.

3. Environmental Impacts

a. Methodology

The evaluation of potential impacts to GHG emissions that may result from the construction and long-term operations of the Project is conducted as follows:

(1) Greenhouse Gas Emissions

For the purposes of this EIR, total GHG emissions from the Project were quantified to determine whether the emissions would substantially help or hinder the state's ability to attain the goals identified in AB 32 (i.e., reduction of statewide GHG emissions to 1990 levels by 2020). As stated above, the mandate of AB 32 demonstrates California's commitment to reducing GHG emissions and the state's associated contribution to climate change, without intending to limit population or economic growth within the state.

The California Climate Action Reserve (CCAR) has prepared the General Reporting Protocol for calculating and reporting GHG emissions from a number of general and industry-specific activities. No specific protocols are available for land use projects, so the General Reporting Protocol has been adapted to address GHG emissions from the Project. The information provided in this section is consistent with the General Reporting Protocol minimum reporting requirements. The General Reporting Protocol recommends the separation of GHG emissions into three categories that reflect different aspects of ownership or control over emissions. They include:

- Scope 1: Direct, on-site combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel).
- Scope 2: Indirect, off-site emissions associated with purchased electricity or purchased steam.
- Scope 3: Indirect emissions associated with other emissions sources, such as third-party vehicles and embodied energy.[1]

CARB believes that consideration of so-called indirect emissions provides a more complete picture of the GHG footprint of a facility: "As facilities consider changes that would affect their emissions – addition of a cogeneration unit to boost overall efficiency even as it increases direct emissions, for example – the relative impact on total (direct plus indirect) emissions by the facility should be monitored. Annually reported indirect energy usage also aids the conservation awareness of the facility and provides information" to CARB to be considered for future strategies by the industrial sector. For these reasons, CARB has proposed requiring the calculation of direct and indirect GHG emissions as part of the AB 32 reporting requirements. Additionally, the Office of Planning and Research directs lead agencies to "make a good-faith effort, based on available information, to calculate, model, or estimate…GHG emissions from a project, including the emissions associated with vehicular traffic, energy consumption, water usage and construction activities." Therefore, direct and indirect emissions have been calculated for the Project.

For purposes of this analysis, it is considered reasonable and consistent with criteria pollutant calculations to consider those GHG emissions resulting from Project-related incremental (net) increase in the use of on-road mobile vehicles, electricity, and natural gas compared to existing conditions. This includes Project construction activities such as site preparation, grading, hauling, and construction worker trips. This analysis also considers indirect GHG emissions from water conveyance, wastewater generation, and solid waste handling. Since potential impacts resulting from GHG emissions are long-term rather than acute, GHG emissions are calculated on an annual basis. In order to report total GHG emissions using the CO_2e metric, the GWP ratios corresponding to the warming potential of CO_2 over a 100-year period is used in this analysis.

Construction activity that would occur as a result of the Specific Plan would generate GHG emissions through the use of heavy-duty construction equipment and through vehicle trips generated from construction workers traveling to and from construction sites. Specific project-level developments are not proposed as part of the Specific Plan. As a result, specific project-

[1] Embodied energy includes energy required for water pumping and treatment for end-uses.

level information, such as construction schedules and import and export soil quantities, are not known. For the purposes of conducting a programmatic assessment of the Project, construction- and operation-related GHG impacts are qualitatively assessed by evaluating consistency with applicable CARB and SCAQMD measures to reduce emissions from the combustion of fossil fuels.

The analysis of a project's impact on GHG emissions during long-term project operations typically considers emissions from mobile sources, stationary area point sources, energy and water demand, and wastewater and solid waste generation. Operational air quality impacts are assessed based on the incremental net increase in emissions compared to the existing baseline conditions.

The incremental net change in operational emissions are estimated using CARB's updated version of the on-road vehicle emissions factor (EMFAC) model and the California Emissions Estimator Model (CalEEMod) software. Mobile source emissions are estimated based on CARB's updated version of the EMFAC model. The most recent version is EMFAC2014, which represents CARB's current understanding of motor vehicle travel activities and their associated emission levels. Mobile source emissions are based on the CalEEMod generated VMT estimates, obtained from the trip generation rates provided in the Traffic Impact Analysis for the Project (Urban Crossroads, 2016). The emission factors from EMFAC2014 are applied to the VMT to obtain mobile source emissions. See Chapter 4.B, Air Quality, for more information.

With regard to energy usage, the consumption of fossil fuels to generate electricity and to provide heating and hot water generates GHG emissions. Fuel consumption is estimated based on specific square footage of the commercial, retail, and residential land uses, as well as predicted water supply needs of the Project. Energy usage (electricity and natural gas consumption) for the Project is calculated within CalEEMod using the CEC's CEUS data set. This data set provides energy intensities of different land uses throughout the state and different climate zones. However, since the data from the CEUS is from 2002, the CalEEMod software incorporates correction factors to account for compliance with the 2008 Title 24 Building Standards Code. Water demand and wastewater generated from the Project require energy to supply, distribute and treat.

Emissions from solid waste handling generated as a result of the Specific Plan are also accounted for in the GHG emissions inventory.

Operational GHG impacts are assessed based on the Project-related incremental increase in GHG emissions compared to baseline conditions. Under CEQA, the baseline environmental setting is established at the time that environmental assessment commences. The net change in Project VMT is based on the Project VMT minus the existing VMT. Similarly, the net change in the Project's energy, waste, and water GHG emissions are based on the Project's emissions minus the emissions from the existing land uses. However, since the Project Site in its current state is mostly vacant, net operational emissions are considered net new emissions as a result of full buildout of the Specific Plan. Detailed GHG emissions calculations are provided in Appendix A-1 of the *Greenhouse Gas Emissions Technical Report*.

As previously discussed in Section 4.B, Air Quality, of the EIR, the Specific Plan consists of two future development scenarios. For the purpose of this analysis, Project impacts will be analyzed based on these two different development scenarios of the Specific Plan.

- Scenario 1 would consist of the development of community commercial, open space, and public facility uses on the Project Site.
- Scenario 2 would consist of the development of community commercial, open space, and public facility uses, as well as the development of a residential overlay that would transfer retail uses to open space area.

(2) Consistency with Greenhouse Gas Reduction Plan, Policies, and Actions

In accordance with the *CEQA Guidelines*, the Office and Planning and Research encourages lead agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. The SCAQMD has not established numerical significance thresholds for quantitatively determining GHG emission impacts in accordance with the CEQA criteria listed below. The County of San Bernardino has adopted the SBC Reduction Plan as recommended in the relevant amendments to the *CEQA Guidelines*. The SBC Reduction Plan includes city-specific reduction measures for the City of Rialto; thus, consistency with the City's reduction measures would result in the Project's consistency with the overall SBC Reduction Plan. In addition, the City of Rialto has adopted the CALGreen Code that requires applicable projects to implement energy efficiency measures. The California CAT Report provides recommendations for specific emission reduction strategies for reducing GHG emissions and reaching the targets established in AB 32 and Executive Order S-3-05. Thus, if the Project is designed in accordance with these policies and regulations, it would result in a less than significant impact, since it would be consistent with the overarching State regulations on GHG reduction (AB 32).

b. Thresholds of Significance

For purposes of this EIR, the City of Rialto has utilized the checklist questions in Appendix G of the *CEQA Guidelines* as thresholds of significance to determine whether a project would have a significant environmental impact regarding GHG emissions. Based on applicable Project components and Appendix G questions, the Project would result in a significant impact with regard to greenhouse gas emissions if the Project would:

Threshold 1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance (refer to Impact Statement GHG-1).

Threshold 2: Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases (refer to Impact Statement GHG-2).

As noted previously, the increased concentration of GHGs in the atmosphere has been linked to global warming, which can lead to climate change. Construction and operation of the Project would incrementally contribute to GHG emissions along with other past, present, and future

activities, and the CEQA Guidelines acknowledge this as a cumulative impact. As such, impacts of the Project's GHG emissions are analyzed here on a cumulative basis.

The California Supreme Court recently considered the CEQA issue of determining the significance of GHG emissions in its decision, Center for Biological Diversity v. California Department of Fish and Wildlife and Newhall Land and Farming (CBD vs. CDFW). The Court questioned a common CEQA approach to GHG analyses for development projects that compares project emissions to the reductions from BAU that will be needed statewide to reduce emissions to 1990 levels by 2020, as required by AB 32. The court upheld the BAU method as valid in theory, but concluded that the BAU method was improperly applied in the case of the Newhall project because the target for the project was incorrectly deemed consistent with the statewide emission target of 29 percent below BAU for the year 2020. In other words, the court said that the percent below BAU target developed by the AB 32 Scoping Plan is intended as a measure of the GHG reduction effort required by the State as a whole, and it cannot necessarily be applied to the impacts of a specific project in a specific location. The Court provided some guidance to evaluating the cumulative significance of a proposed land use project's GHG emissions, but noted that none of the approaches could be guaranteed to satisfy CEQA for a particular project. The Court's suggested "pathways to compliance" include:

1. Use a geographically specific GHG emission reduction plan (e.g., climate action plan) that outlines how the jurisdiction will reduce emissions consistent with State reduction targets, to provide the basis for streamlining project-level CEQA analysis, as described in CEQA § 15183.5.
2. Utilize the Scoping Plan's business-as-usual reduction goal, but provide substantial evidence to bridge the gap between the statewide goal and the project's emissions reductions;
3. Assess consistency with AB 32's goal in whole or part by looking to compliance with regulatory programs designed to reduce GHG emissions from particular activities; as an example, the Court points out that projects consistent with an SB 375 Sustainable Communities Strategy (SCS) may need to re-evaluate GHG emissions from cars and light trucks.
4. Rely on existing numerical thresholds of significance for GHG emissions, such as those developed by an air district.

According to the SBC Reduction Plan, following completion and approval of its Program EIR, partnership cities may adopt the regional Climate Action Plan (CAP) or Reduction Plan as their local CAP. The City of Rialto, as one of the 21 partnership cities of San Bernardino County, has adopted the CEQA-qualified SBC Reduction Plan, in absence of developing its own local CAP at this time, and will implement the City-specific reduction measures outlined in the Plan as project design features, as applicable. Therefore, Compliance Pathway #1, listed above, is a viable method for determining significance for this project and will be used in the following analysis.

c. Project Design Features

The Specific Plan encourages the implementation of realistic sustainable design strategies into the Project design, which would reduce GHG emissions. As discussed in Chapter 4, Design

Guidelines, of the Specific Plan, sustainable design strategies that may be utilized in the Specific Plan include the following:

(1) Site Planning

Elements of sustainable design and site planning may include, but not be limited to, the following:

- Encourage developing a Traffic Demand Management program that supports alternatives to single occupancy vehicle use.
- Provide physical linkages throughout the Project Site that promote bicycling and walking.
- Concentrate development near local services and amenities.
- Encourage shared parking where determined possible.

(2) Energy Efficiency

Most buildings can reach energy efficiency levels that exceed California Title 24 standards, yet many only strive to meet the standard. It is reasonable to strive for energy reduction in excess of that required by Title 24 standards. At a minimum, all projects would also be required to comply with the California Green Building Standards. Where feasible and appropriate, the following strategies are encouraged, but not required:

- Passive design strategies can dramatically affect building energy performance. These measures include, but are not limited to, building shape and orientation, passive solar design, and the use of natural lighting.
- Incorporate the use of low-E windows or use Energy Star windows.
- Use a properly sized and energy-efficient heating/cooling system in conjunction with a thermally efficient building shell.
- Consider utilizing light colors for wall finish materials.
- Install high R-value wall and ceiling insulation.
- Installation of solar water heating systems that use rooftop solar technologies to offset natural gas use**.**
- Encouragement for new commercial businesses to install rooftop solar photovoltaic systems.
- Encouragement of new commercial and industrial facilities greater than 100,000 SF to install co-generation facilities that combine heat and power systems for energy output.

Development within the Project is encouraged to implement some of the strategies of the Energy Star program, which is an energy performance rating system developed by the U.S. Department of Energy and the Environmental Protection Agency. The program certifies products and buildings that meet strict energy-efficiency guidelines. Involvement in the Energy Star program would be completely optional at the discretion of the developer/builder.

(3) Materials Efficiency

Select sustainable construction materials and products by evaluating characteristics such as reused and recycled content, zero or low off gassing of harmful air emissions, zero or low toxicity, sustainably-harvested materials, high recyclability, durability, longevity, and local production. Such products promote resource conservation and efficiency. Using recycled-content products also helps develop markets for recycled materials that are being diverted from California's landfills, as mandated by the Integrated Waste Management Act.

- Encourage the use of low VOC paints and wallpapers.
- Encourage the use of low VOC Green Label carpet.
- Use dimensional planning and other material efficiency strategies. These strategies reduce the amount of building materials needed and cut construction costs.
- Design with adequate space to facilitate recycling collection and to incorporate a solid waste management program that prevents waste generation.
- Establish a construction waste recycling program with a local waste management company, with a goal of recycling no less than 50 percent of the construction waste generated by construction of the project. Excavated soil and land-clearing debris does not contribute to this requirement.
- The waste disposal company shall be responsible for providing recycle bin(s) to facilitate recycling.

(4) Water Efficiency

Elements of water efficiencies may include, but not be limited to, the following:

- Minimize water usage by installing ultra low-flush toilets, low-flow shower heads and other water conserving fixtures.
- Use state-of-the-art irrigation controllers and self-closing nozzles on hoses.
- Minimize turf areas within the community.
- Use a climate driven plant selection that specifies native, non-invasive, and drought tolerant plants requiring minimal or no irrigation.
- Use green waste mulch and soil amendments to retail soil moisture.

d. Project Impacts

(1) GHG Emissions

Threshold GHG-1: A significant impact would occur if the Project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance.

Impact Statement GHG-1: The Project would generate GHG emissions due to construction and operational activities; however, the net increase in annual GHG emissions, directly and indirectly, would be consistent with the City of Rialto GHG reduction measures and SBC Reduction Plan. Therefore, as the Project would be consistent with the applicable City's goals and actions for GHG emissions, GHG emissions and associated impacts would be less than significant.

Construction activities of the Project would generate temporary, short-term emissions of GHGs during site preparation, grading, building construction, and architectural coating activities. Information regarding project-specific development would be needed in order to quantify the level of impact associated with construction activity. It is recognized that construction-related GHG emissions from implementing specific projects would "occur over a relatively short-term period of time, they contribute a relatively small portion of the overall lifetime project GHG emissions" (SCAQMD, 2008). Construction activities would be required to comply with applicable State and SCAQMD regulations including the CARB on-road and off-road vehicle rules that limit idling to five minutes and require construction fleets to meet stringent exhaust standards. Compliance with these regulations would minimize construction GHG emissions.

Operation of the land uses developed pursuant to implementation of the Specific Plan would result in area and mobile source emissions generated by future development and population growth. According to the Project CalEEMod outputs based on the trip generation rates of the Traffic Impact Analysis, the annual VMT would be approximately 40.1 million miles for Scenario 1 and approximately 46.3 million miles for Scenario 2. Since the current land uses existing on the parcels are mostly vacant and undeveloped, it is assumed that the Specific Plan would not involve demolition and all operational emissions generated represent net new emissions for the Project. Operational uses on the Project Site could be active as early as 2017, and the Project is anticipated to be fully built out and operational in 2035. **Table 4.E-3** and **Table 4.E-4** shows annual GHG emissions from the full operation of the Project in 2035 under Scenario 1 and Scenario 2, respectively.

Prior to the issuance of building permits, the Specific Plan will need to demonstrate the incorporation of project design features in order to achieve a regional emissions reduction goal outlined in the SBC Reduction Plan, and a reduction of state-wide emissions to 1990 levels by 2020, pursuant to AB 32. **Table 4.E-5** shows the applicable GHG reduction measures selected by the City of Rialto in order to meet its local goal of reducing GHG emissions to a level of 15 percent below its 2008 GHG emissions level by 2020, and their consistency and applicability with the Project. The City of Rialto reduction measures evaluated below are adopted directly from the SBC Reduction Plan. Therefore, Project consistency with the City of Rialto reduction measures below would indicate consistency with the SBC Reduction Plan.

TABLE 4.E-3
SCENARIO 1 – ANNUAL GHG EMISSIONS AT BULIDOUT YEAR 2035

Emission Sources	Estimated Emissions CO2e (MT/yr)
Construction	
Annual Mitigated Construction (amortized over 30 years)a	15
Operations	
Area	<1
Energy (Electricity)	4,026
Energy (Natural Gas)	1,001
Mobile	4,368
Water Use	332
Solid Waste	122
Total GHG Emissions	**9,864**

a According to SCAQMD Interim CEQA GHG Significance Threshold Rule, construction emissions will be amortized over the life of the project, defined as 30 years.
Source: ESA PCR, 2016

TABLE 4.E-4
SCENARIO 2 – ANNUAL GHG EMISSIONS AT BULIDOUT YEAR 2035

Emission Sources	Estimated Emissions CO2e (MT/yr)
Construction	
Annual Mitigated Construction (amortized over 30 years)a	23
Operations	
Area	71
Energy (Electricity)	4,319
Energy (Natural Gas)	1,140
Mobile	8,193
Water Use	391
Solid Waste	168
Total GHG Emissions	**14,305**

a According to SCAQMD Interim CEQA GHG Significance Threshold Rule, construction emissions will be amortized over the life of the project, defined as 30 years.
Source: ESA PCR, 2016

TABLE 4.E-5
PROJECT CONSISTENCY WITH CITY OF RIALTO REDUCTION MEASURES

Measure Number	Measure Description	Consistency Analysis
State-1	**Renewable Portfolio Standard (RPS):** Obligates utility and energy service providers to procure 33% of retail sales from eligible renewable sources by 2020.	**Consistent.** The Project would be provided energy by Southern California Edison, which is subject to the RPS standard for renewable energy.
State-2	**Title 24 (Energy Efficiency Standards):** Requires that building shells and building components be designed to conserve energy and water. 2013 T24 standards represent a 21% and 30% increase in energy efficiency for residential and non-residential buildings, respectively.	**Consistent.** The Project has incorporated Title 24 measures in its project design and modeling scenarios. The GHG emissions presented above demonstrate implementation of Title 24.
State-3	**AB 1109 (Lighting Efficiency and Toxics Reduction Act):** Structured to reduce statewide electricity consumption by 1) at least 50% reduction from 2007 levels for indoor residential lighting, and 2) at least 25% reduction from 2007 levels for indoor commercial and outdoor lighting, by 2018.	**Consistent.** The Project would be subject to AB 1109, as required by the CEC. Therefore, the Project is consistent with this regulation and would not conflict with implementation of reduced lighting energy standards.
State-4	**AB 1470 Solar Water Heating:** Creates a $25 million per year, 10-year incentive program to encourage the installation of solar water heating systems that offset natural gas use in homes and businesses throughout the state.	**Consistent.** The Project encourages the installation of solar water heating systems that use rooftop solar technologies to offset natural gas use, where feasible and appropriate.
State-6	**AB 1493 (Pavley) and Executive Order S-1-07 (Low Carbon Fuel Standard):** AB 1493 will reduce GHG emissions from automobiles and light duty trucks by 30% from 2002 levels by the year 2016. The Low Carbon Fuel Standard (LCFS) reduces GHG emissions by requiring a low carbon intensity of transportation fuels sold in California by at least 10% by the year 2020.	**Consistent.** The Project is not a vehicle manufacturer or refinery that produces fuels, therefore the Project has no direct control over AB 1493 and LCFS reductions. However, as the Project tenants would be purchasing and operating vehicles that are governed by AB 1493 and LCFS reductions, it would not conflict with the implementation.
State-7	**AB 32 Transportation Reduction Strategies:** AB 32 Scoping Plan includes vehicle efficiency measures that focus on maintenance practices, including engine efficiency, vehicle technology improvements, and fuel usage reduction.	**Consistent.** The Project is not a vehicle manufacturer that incorporates vehicle technology improvements, therefore the Project has no direct control over **AB 32** reductions. However, as the Project tenants would be purchasing and operating vehicles that are governed by AB 32 reductions, it would not conflict with the implementation.
State-8	**Executive Order S-1-07 (LCFS):** Requires a 10% reduction in the carbon intensity of California's transportation fuels by 2020.	**Consistent.** The Project is not a vehicle manufacturer or refinery that produces fuels, therefore the Project has no direct control over LCFS reduction. However, as the Project tenants would be purchasing and operating vehicles that are governed by LCFS reduction, it would not conflict with the implementation
PS-1	**GHG Performance Standard for New Development:** This measure would include a performance standard for new private developments as part of the discretionary approval process under CEQA. New projects would be required to quantify project-generated GHG emissions and adopt feasible reduction measures to reduce project emissions to a level which is a certain percent below BAU project emissions.	**Consistent.** As a new development, the Project would be subject to the performance standard measures adopted by the City of Rialto. The Project includes sustainable design strategies that will be implemented in the development, which would reduce Project-related GHG emissions to meet the City's reduction goal. Therefore, the Project would be consistent with this standard.

Measure Number	Measure Description	Consistency Analysis
Energy-5	**Solar Installations for New Commercial:** Encourage new businesses to install rooftop solar using Power Purchase Agreements and other low or zero up-front cost options for installing solar photovoltaic systems. This measure only affects new nonresidential buildings.	**Consistent. The Project** encourages new commercial businesses to install rooftop solar photovoltaic systems, where feasible and appropriate, to offset electricity provided by utilities.
Energy-9	**Install Co-Generation Facilities:** Co-generation facilities simultaneously generate electricity and useful heat, typically used in district heating systems. As feasible, encourage co-generation facilities to supply 15% of building energy in new commercial and industrial facilities greater than 100,000 square feet.	**Consistent.** The Project encourages new commercial and industrial facilities greater than 100,000 SF to install co-generation facilities that combine heat and power systems for energy output, where feasible and appropriate.
Transportation-1	**SB 375 Sustainable Communities Strategy (SCS):** SB 375 requires regional transportation plans (RTPs), developed by metropolitan planning organizations (MPOs) to incorporate a SCS in their RTPs. The goal of the SCS is to reduce regional VMT through land use planning and consequent transportation patterns.	**Consistent.** The Project identifies sustainable design features that will encourage sustainable transportation efforts, including a Traffic Demand Management program that supports alternatives to single occupancy vehicle use and physical linkages that promote bicycling and walking.
Transportation-2	**Smart Bus Technologies:** Smart Bus Technologies include Automatic Vehicle Location (AVL) systems and real-time passenger information at bus stations. Implementing these technologies system-wide on all bus routes serving San Bernardino Valley would enable information sharing, enhance rider services, and attract potential riders.	**Consistent.** The Project identifies sustainable design features that will encourage sustainable transportation efforts, including a Traffic Demand Management program that supports alternatives to single occupancy vehicle use and physical linkages that promote bicycling and walking.
OffRoad-1	**Electric-Powered Construction Equipment:** Offer incentives to construction contractors that utilize electric equipment in a certain percentage of their fleet.	**Consistent.** Implementation of Mitigation Measure AIR-1 would require all off-road construction equipment to have USEPA certified Tier 4 engines or engines that are certified to meet or exceed the emission ratings for USEPA Tier 4 engines, resulting in a comparable emissions reduction to electric-powered construction equipment.
OffRoad-2	**Idling Ordinance:** Adopt an Ordinance that limits idling time for heavy-duty construction equipment beyond CARB or local air district regulations. California state law currently requires all off-road equipment fleets to limit idling to no more than 5 minutes.	**Consistent.** As required by state law, construction equipment used during construction would be idle for no more than 5 minutes. Therefore, the Project is consistent with the state law regarding off-road equipment idling limits.
Water-1	**Require Tier 1 Voluntary CALGreen Standards for New Construction:** Recommend use of certain water-efficient appliances, and plumbing and irrigation systems, as well as more aggressive water savings targets, including A 30-40% reduction over BAU conditions in indoor water use, and a 55-60% reduction in outdoor potable water use	**Consistent.** The Project includes the installation of water efficiency measures, such as low-water irrigation, water-efficient plumbing, and rainwater/graywater systems, as elements of its sustainable design features. Therefore, the Project is consistent with this water conservation standard.
Water-3	**Water-Efficient Landscaping Practices:** Encourage water-efficient landscaping practices. Adopt a landscaping water conservation plan that exceeds the requirements in the Model Landscape Ordinance.	**Consistent**. The Project includes the use of water irrigation controllers and drought tolerant plants as elements of its sustainable design features. Therefore, the Project is consistent with this water conservation standard.

Measure Number	Measure Description	Consistency Analysis
Water-4	**SB X7-7 Water Conservation Act of 2009:** SB X7-7 was enacted in November 2009 and requires urban water agencies throughout California to increase conservation to achieve a statewide goal of a 20 percent reduction in urban per capita use by December 31, 2020.	**Consistent.** The Project is not an urban water agency, and therefore the Project has no direct control over this reduction. However, as the Project tenants would be supplied water by West Valley Water District that is governed by this reduction, it would not conflict with the implementation.

As shown in Table 4.E-5, the Project with the implementation of the applicable sustainable design strategies would be consistent with the City of Rialto reduction measures that would reduce GHG emissions to meet the City goal of 15 percent below its 2008 GHG emissions level by 2020. The measures would be implemented on a project-by-project basis as applicable to each individual project within the Specific Plan.

With implementation of these sustainable design strategies into the Specific Plan, the Project would be consistent with SBC Reduction Plan, according to CEQA § 15183.5 in Compliance Pathway #1 described above. Thus, the Project would reduce GHG emissions consistent with the SBC Regional Plan and would result in GHG emissions that would be considered a less than significant impact.

(2) Greenhouse Gas Reduction Plans

Threshold GHG-2: A significant impact would occur if the Project would conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

Impact Statement GHG-2: The Project would be consistent with the AB 32 goals and CARB guidelines for assessing GHG emissions. Further, the Project would include land use characteristics and design strategies that would be consistent with State, Regional, and Local Regulations for reducing GHG emissions. Therefore, as the Project would be consistent with applicable plans, policies and regulations adopted for the purpose of reducing GHG emissions, impacts regarding greenhouse gas reduction plans would be less than significant.

a. Consistency with SBC Reduction Plan

The SBC Reduction Plan was created as a tool for inventorying municipal GHG emissions and an evaluation of reduction measures that could be adopted by the 21 Partnership Cities to reduce local GHG emissions. The SBC Reduction Plan presents the collective results of all local efforts to reduce GHG emissions consistent with statewide GHG targets expressed in AB 32, which calls for a reduction of state-wide emissions to 1990 levels by 2020, and SB 375, which requires regional transportation planning to promote reductions in passenger and light duty vehicle emissions.

The SBC Reduction Plan outlines reduction measures for each city to reduce its GHG emissions to the state-wide reduction goals. The City of Rialto's reduction measures that are applicable to

the Project are shown in Table 4.E-5. By meeting the reduction measures selected by the City of Rialto, the Project would be consistent with the statewide GHG targets indicated in AB 32 and the transportation planning goals indicated in SB 375. As discussed under Impact Statement GHG-1, with implementation of the Specific Plan's sustainable design strategies, the Project would not conflict with the SBC Reduction Plan.

b. Consistency with California Green Building Standards Code

In addition, the Project would incorporate strategies and measures that would reduce GHG emissions by increasing energy-efficiency building requirements, reducing indoor and outdoor water demand, and incorporating waste reduction measures. In accordance with the CALGreen Code, implementation of the Specific Plan would incorporate the following features supportive of goals to reduce GHG emissions:

- Energy Conservation: New development would be required to reduce energy demand in accordance with the Title 24 Building Standards Code.
- Water Conservation: New development would be required to reduce indoor and outdoor water demand by 20 percent in accordance with the Title 24 Building Standards Code.
- Resource Conservation: New development would be required to recycle, reuse, or divert from landfills at least 50 percent of nonhazardous construction waste (by weight).

c. Consistency with Executive Orders

Executive Orders S-3-05 and B-30-15 are for the purpose of reducing statewide GHG emissions. Executive Orders S-3-05's goal to reduce GHG emissions to 1990 levels by 2020 was codified by AB 32. As analyzed above, the implementation of the Project would be consistent with AB 32. Therefore, the Project would not conflict with this component of these Executive Orders.

Although the Project's emissions levels in 2030 and 2050 cannot yet be reliably quantified, Statewide efforts are underway to facilitate the State's achievement of those goals and it is reasonable to expect the Project's incremental emissions to decline as the regulatory initiatives identified by CARB in the First Update are implemented, and other technological innovations occur. Stated differently, the Project's emissions total at buildout represents the maximum emissions inventory for the Project as California's emissions sources are being regulated (and foreseeably expected to continue to be regulated in the future) in furtherance of the State's environmental policy objectives. As such, given the reasonably anticipated decline in Project emissions once fully constructed and operational, the Project would be consistent with the Executive Orders' goals.

In conclusion, as the Project would be consistent with applicable plans, policies and regulations adopted for the purpose of reducing GHG emissions, impacts regarding greenhouse gas reduction plans would be less than significant.

e. Cumulative Impacts

The geographic scope for the analysis of cumulative construction- and operational-related impacts resulting from the emissions of GHG is worldwide. Construction and operation of the

Project would incrementally contribute to GHG emissions along with past, present, and future activities, and the CEQA Guidelines acknowledge this as a cumulative impact. As such, impacts of GHG emissions as analyzed for the "project level" in this section also represent the cumulative analysis.

As discussed under Impact Statement GHG--1, annual emissions of GHGs from implementation of the Project would result in a maximum total of 14,305 $MTCO_2e$ per year at full buildout. It was determined that consistency with the SBC Reduction Plan would result in the Project meeting the City-wide goal of reducing GHG emissions to a level of 15 percent below its 2008 GHG emissions level by 2020. Therefore, the Project would result in a less than cumulatively considerable impact related to GHG emissions.

As discussed in Impact Statement GHG-2, the Project would be designed to comply with the CALGreen Code to ensure that the new on-site developments would use resources (energy, water, etc.) efficiently and substantially reduce pollution and waste, according to Title 24. The Project would also comply with the goals set by AB 32, SB 375, and Executive Orders S-3-05 and B-30-15 through consistency with the SBC Reduction Plan. Therefore, the Project would result in a less than cumulatively considerable impact related to applicable GHG plans and policies.

4. Mitigation Measures

The Project would result in less than significant impacts with respect to emissions of GHGs and consistency with applicable GHG emissions reductions plans, policies, or regulations. Therefore, no mitigation measures would be required.

5. Level of Significance After Mitigation

Not applicable. Impacts regarding emissions of GHGs and consistency with applicable GHG emissions reductions plans, policies, or regulations would be less than significant.

6. References

Anderegg, William R. L., J.W. Prall, J. Harold, S.H., Schneider, 2010. *Expert Credibility in Climate Change*. Proceedings of the National Academy of Sciences of the United States of America. Available at: http://www.realclimate.org/index.php/archives/2010/08/expert-credibility-in-climate-change-responses-to-comments/. August 3, 2010

California Air Resources Board (CARB), 2016. "California Greenhouse Gas 2000-2013 Inventory by Scoping Plan Category – Summary." Available at: http://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed June 2016.

____, 2015. Business-as-Usual (BAU) Emissions Projection, 2014 Edition, Available at: http://www.arb.ca.gov/cc/inventory/data/bau.htm. Accessed November 2015.

____, 2013. "Advanced Clean Cars Summary," http://www.arb.ca.gov/msprog/clean_cars/acc%20summary-final.pdf. Accessed June 2016.

____, 2011. Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document (FED), Attachment D, August 19, 2011;

____, 2007. "California Greenhouse Gas 2000-2013 Inventory by Scoping Plan Category – Summary." Available at: http://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed June 2016.

California Building Standards Commission, 2010. California Green Building Standards Code, 2010.

California Department of Finance, "Financial & Economic Data: Gross Domestic Product, California." Available at: http://www.dof.ca.gov/HTML/FS_DATA/LatestEconData/FS_Misc.htm. Accessed June 2016.

California Department of Water Resources (DWR), 2006. *Progress on Incorporating Climate Change into Planning and Management of California's Water Resources*. July 2006. Available at: http://baydeltaoffice.water.ca.gov/climatechange/DWRClimateChangeJuly06_update8-2-07.pdf. Accessed June 2016.

California Energy Commission (CEC), 2006. *Inventory of California Greenhouse Gas Emissions and Sinks 1990 to 2004*. December 2006.

California Environmental Protection Agency (CalEPA), 2006. "Climate Action Team Report to Governor Schwarzenegger and the Legislature." Available at: http://www.climatechange.ca.gov/climate_action_team/reports/#2006. April 3, 2006.

California Natural Resources Agency (CNRA), 2009. *California Climate Adaptation Strategy*. "A Report to the Governor of the State of California in Response to Executive Order S-13-2008." Published 2009.

Intergovernmental Panel on Climate Change (IPCC), 2016. *IPCC Second Assessment Report: Climate Change 1995*. Published 1996.

____, 2015. *IPCC Fifth Assessment Report: Summary for Policy Makers*. Available at: http://www.ipcc.ch/report/ar5/wg1/. Published 2015.

____, 2014. *IPCC Fifth Assessment Report: Synthesis Report*. Available at: http://www.ipcc.ch/report/ar5/wg1/. Published 2014.

National Research Council, 2010. *Advancing the Science of Climate Change*. Published 2010.

Pacific Institute for Studies in Development, (2003). *Environment and Security, Climate Change and California Water Resources: A Survey and Summary of the Literature*. Available at: http://www.pacinst.org/reports/climate_change_and_california_water_resources.pdf. Published July 2003.

Parmesan, C., 2004. Ecological and Evolutionary Response to Recent Climate Change.

PBL Netherlands Environmental Assessment Agency, 2014. *Trends in Global CO_2 Emissions 2014 Report*. Published 2014.

San Bernardino Associated Governments, 2014. *San Bernardino County Regional Greenhous Gas Reduction Plan*. March 2014.

South Coast Air Quality Management District, 2008. Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, (2008).

U.S. Census Bureau, 2015. "California, Population of Counties by Decennial Census: 1900 to 1990." Available at: http://quickfacts.census.gov/qfd/states/06000lk.html. Accessed June 2016.

United States Environmental Protection Agency (USEPA), 2012. "EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks," Available at: http://www.epa.gov/oms/climate/documents/420f12051.pdf. 2012.

F. Land Use and Planning

1. Introduction

Future development within the Specific Plan Site is guided by policies and regulations set forth in local and regional plans. The provisions set forth in these plans have been adopted for eliminating or reducing potential land use impacts as a result of development within their jurisdictional boundaries. This section provides an analysis of the potential impacts of the Specific Plan regarding consistency with applicable land use regulations, as well as the compatibility of the Project with the surrounding uses in the area. Secondary environmental effects caused as a result of the land use relationships analyzed in this section are addressed in other sections of the Draft EIR.

2. Environmental Setting

a. Existing Conditions

(1) Project Site Conditions

The approximately 101.7-acre Pepper Avenue Specific Plan Site is located south of the 210 Freeway and along Pepper Avenue in the northeastern portion of the City of Rialto. The 210 Freeway and Pepper Avenue interchange project is currently under construction and anticipated for completion in 2017. The Project Site is mostly vacant except for the recently constructed Pepper Avenue roadway extension, which bisects the Site, and the West Valley Water District (WVWD) Lord Ranch Facility. The WVWD facility includes water wells, a pump station, and a reservoir on approximately 13.7 acres. An unnamed wash drains southeasterly through the Project Site, eventually emptying into Lytle Creek, and is roughly eight feet lower than the portions of the site that are designated for development. The construction of the 210 Freeway and the completion of the Pepper Avenue extension between Winchester Drive and Highland Avenue have made the Site a viable development site prospect and potential gateway element for the City of Rialto.

(2) Surrounding Uses

The City is primarily surrounded by the developed cities of Fontana, Colton, and San Bernardino, although unincorporated portions of the counties of San Bernardino and Riverside also abut the City. The Riverside Highland Water Company property, the BNSF Railroad, and the Lytle Creek Wash (trending in a southeast/southwest) in the City of San Bernardino immediately to the east. The Lytle Creek – Island Levee System protects the Project Site from potential flooding associated with Lytle Creek. In addition, a semi-rural residence is located to the east of the Site just beyond the railroad line to the east of the WVWD facility.

Single-family residential uses in the North Pepper Avenue Neighborhood and Frisbie Park are located to the west. Frisbie Park includes six lighted baseball/softball fields and children's play areas. The wash, vacant land, and single-family homes are located to the south.

(3) Existing General Plan and Zoning Designations

The Project Site is comprised of 12 parcels, ten of which are privately owned with two parcels in the southern portion of the Site owned by WVWD. The current zoning for the Project Site is Single-Family Residential (R-1A), which was automatically applied when the property was annexed into the City of Rialto. The corresponding General Plan land use designation is Residential 6. The Residential 6 designation permits a density range of 2.1-6 du/acre consisting of detached units in suburban-style subdivisions, with one unit per lot.

b. Regulatory Framework

The following discussion identifies and generally describes the regulatory plans and policies and ordinances that would be applicable to development at the Project Site. Specific provisions of those documents that pertain to the project are listed in the Impact Analysis section below and evaluated for consistency with the project features.

(1) State Level

(a) California Government Code Section 65450

The State of California utilizes Section 65450 of the California Government Code to regulate the implementation of specific plans. A specific plan is a tool for the systematic implementation of a General plan. It effectively establishes a link between implementing policies of the general plan and the individual development proposals in a defined area. A specific plan may be as general as setting forth broad policy concepts, or as detailed as providing direction to every facet of development from the type, location and intensity of uses to the design and capacity of infrastructure; from the resources used to finance public improvements to the design guidelines of a subdivision.

Section 65451 of the California Government Code sets forth a range of requirements that any specific plan must address. The statutory requirements include:

a. A specific plan shall include a text and a diagram or diagrams which specify all of the following in detail:
   i. The distribution, location, and extent of the uses of land, including open space, within the area covered by the plan.
   ii. The proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan.
   iii. Standards and criteria by which development will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable.
   iv. A program of implementation measures including regulations, programs, public works projects, and financing measures necessary to carry out paragraphs (1), (2), and (3).

b. The specific plan shall include a statement of the relationship of the specific plan to the general plan.

The adoption of a specific plan is a legislative act similar to adoption of a general plan or zoning ordinance. However, unlike a general plan, which is required to be adopted by resolution, two options are available for the adoption of a specific plan: 1) adoption by resolution, which is designed to be policy driven; or 2) adoption by ordinance, which is regulatory by design.

(2) Regional Level

(a) Southern California Association of Governments (SCAG)

SCAG is the designated regional planning agency for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura and Imperial. SCAG is a joint powers agency with responsibilities pertaining to regional issues. SCAG's current land use policies are set forth in the 2012 *Regional Transportation Plan/Sustainable Communities Strategy: Toward a Sustainable Future*. The 2012-2035 RTP/SCS is a long-range regional transportation plan that provides a blueprint to help achieve a coordinated and balanced regional transportation system in the SCAG region, which is composed of six counties: Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The RTP/SCS is the culmination of a multi-year effort involving stakeholders from across the SCAG Region, and includes short- and long-range population, housing, and employment projections for local, subregional, and regional geographies that are utilized for regional planning efforts.

The 2012 RTP/SCS presents the transportation vision for the region through the year 2035 and provides a long-term investment framework for addressing the region's transportation and related challenges. Also, the 2012 RTP/SCS contains baseline socioeconomic projections that are used as the basis for SCAG's transportation planning and the provision of services by other regional agencies. The SCS portion presents an overall land use concept for the region with increasing focus on densification of urban areas and development around transit stations and increased focus on use of transit and active transportation. The RTP includes goals and policies that seek to:

- Align the plan investments and policies with improving regional economic development and competitiveness;
- Maximize mobility and accessibility;
- Ensure travel safety and reliability;
- Preserve and ensure a regional transportation system;
- Maximize productivity of the transportation system;
- Protect the environment and health of residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking);
- Actively encourage and create incentives for energy efficiency, where possible; encourage land use and growth patterns that facilitate transit and non-motorized transportation; and
- Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.

Policies included in the 2012-2035 RTP/SCS that are applicable to the Project (as well as an analysis of Project consistency) are identified in the Impact Analysis below. Certain goals of the 2012/2035 RTP/SCS, including Goals G1 through G9 are intended to provide guidance for

considering the Project within the context of the regional goas and policies (Chang, 2016). These are evaluated in relation to the Specific Plan in Subsection 3.d, below.

(b) Air Quality Management Plan

The Air Quality Management Plan (AQMP) of the South Coast Air Quality Management District (SCAQMD) presents strategies for achieving the air quality planning goals set forth in the Federal and California Clean Air Acts (CCAA), including a comprehensive list of pollution control measures aimed at reducing emissions. The SCAQMD, which was established in 1977 pursuant to the Lewis-Presley Air Quality Management Act, is responsible for bringing air quality in the South Coast Air Basin (Basin) into conformity with federal and State air pollution standards. The SCAQMD is also responsible for monitoring ambient air pollution levels throughout the Basin and for developing and implementing attainment strategies to ensure that future emissions will be within federal and State standards. The AQMP, adopted in 2012, is addressed in Section 4.B, *Air Quality*, of this Draft EIR (please refer to Section 4.B for a discussion of the Project's consistency with the AQMP).

(c) Congestion Management Program

Proposition 111, passed in June 1990, provided additional transportation funding to cities and counties in California. Included with the provision for additional transportation funding was a requirement to undertake a Congestion Management Program (CMP) within each county with an urbanized area having a population of 50,000 or more, to be developed and adopted by a designated Congestion Management Agency (CMA). Within the County of San Bernardino (County), the San Bernardino Associated Governments (SANBAG) was designated the CMA by the County Board of Supervisors and a majority of the cities representing a majority of the incorporated population. The original document was adopted in November 1992. It has been updated eight times, the latest in December 2007. The CMP defines a network of state highways and arterials, level of service standards and related procedures, and provides technical justification for its approaches. Key intersections include all CMP intersections plus others identified by local jurisdictions as being important to maintaining mobility on the CMP system. For the CMP, intersections operating at level of service (LOS) D or lower will normally be considered key intersections, in addition to the intersections of two CMP roadways. All projects that meet the threshold for the CMP are subject to preparation of CMP Traffic Impact Analyses per CMP Guidelines. CMP Traffic Impact Analyses (TIAs) identify various local and regional circulation system improvements and impact shares as conditions for the development of the subject project. The conditions help to implement the goals and policies of the General Plan Circulation Element. Baseline Avenue and SR-210, which are located near or at the border of the Project Site, are designated CMP roadways.

(3) Local Level

(a) City of Rialto General Plan

The State of California mandates that every city and county adopt a general plan. The City of Rialto adopted its most recent General Plan in December 2010 for the purpose of identifying goals and objectives to implement the community's vision for the City over the next 20 to 30

years. The community's vision statement is based on four guiding principles: (i) Rialto is a "family first" community; (ii) Rialto shall attract high-quality new development and improve its physical environment; (iii) Rialto's economic environment is healthy and diverse; and (iv) Rialto is an active community.

According to the General Plan, within these vision statements is the understanding that neighborhoods will be a safe place to call home; community services must meet the needs and desires of the City's families; high-quality housing will be required; the quality of streetscape and public spaces will be high quality; infrastructure shall keep pace with growth; businesses that provide goods and services desired by the community will be attracted and retained; the City's standards and codes will be enforced; business, government, and economic development organizations will continue to work together; the community will support the creation and maintenance of attractive parks, recreational facilities, and gathering places; the community will continue to participate in community-based events; and the City will be committed to environmental sustainability so that the needs of the present will not compromise the ability of future generations to meet their own needs (Rialto, 2010). The General Plan is expected to provide clear direction to the City leaders regarding land use and related decisions affecting growth and development. The goals and policies of the General Plan are intended to implement the community's vision, and the implementation of these goals and policies are set forth in the City's regulatory documents.

The Land Use, Conservation, Economic Development, Circulation, Safety and Noise, and Housing Elements are applicable to the Pepper Avenue Specific Plan.

Land Use Element

The Land Use section describes the general location, type, and intensity of development, and designates the distribution of land uses throughout Rialto. Land uses such as residential, commercial, industrial, open space, and public uses are planned to meet the needs of residents, support the local economy, achieve the City's fiscal goals, and create an environment that fosters a high quality of life in Rialto. The Land Use section sets policies for land uses in the City and the Sphere of Influence, establishing the foundation for future development. It also addresses the permitted density and intensity of various land uses.

Open Space and Conservation Element

The General Plan defines open space as land that is not developed with buildings or has limited improvements complementary to their intended use, such as parks. The Open Space and Recreation component of this General Plan outlines strategies to preserve the special open space areas in Rialto and to meet the community's recreational and conservation needs. Open space serves many functions in Rialto such as public parks; open space areas along Lytle Creek, which help protect against flooding; open spaces in conservation areas to provide habitat for wildlife and plant species; and landscaped areas between buildings and the street represent private open spaces that provide greenery and visual enhancement. The Open Space and Conservation Element identifies park acreage, population and ration of park acres to residents. According to the Open Space and Conservation Element, the City also mitigates for deficiencies in parkland acreage through capital intensive community facilities such as the community center, an indoor

swimming pool, a racquet and fitness center, a senior center, and a community theatre. The Open Space and Conservation Element states that, because the City is largely built out, limited opportunities are available to develop open spaces. Thus, the City's efforts are, thus, focused on making improvements to established parks that enhance safety, maintenance efficiency, esthetics, and conservation; completing programming and construction on undeveloped portions of established parks, and developing additional acres of planned parks and open spaces within Specific Plan areas (Rialto, 2010).

Economic Development Element

The Economic Development Element describes the challenges facing the business community and sets forth goals and policies to guide the City's economic development decisions. According to the Economic Development Element, the City's economic development programs and policies must respond to respond to challenges, such as loss of retail revenue to surrounding cities, aging commercial centers, and modest demand in office space, and take advantage of Rialto's strengths. As discussed in the General Plan, Rialto has limited freeway frontage and visibility on both the SR-210 and I-10 freeways due to physical constraints at the City/freeway boundaries. The SR-210 frontage is depressed in a trench, impeding the visibility of projects. According to the General Plan, these can be overcome with strategies involving economics and development incentives. With limited vacant land remaining, the few areas available for future development (or redevelopment) represent the last best chance to create economic benefits on a large scale and for the long term. As discussed in the General Plan, the City will collaborate with the business community to facilitate growth, development, and infrastructure improvements that benefit residents and businesses alike. Decisions will be made with an eye toward the long-term vision and goal for economic viability and not simply to respond to immediate proposals or market fluctuations (Rialto, 2010).

Circulation Element

The Circulation Element is one of seven mandated elements of the General Plan and is intended to guide the development of the City's circulation system in a manner that is compatible with the Land Use Element. The Circulation Chapter provides policy direction to create a system of Complete Streets. Complete Streets refers to a multi-modal transportation network designed and operated meet the needs of all users. With Complete Streets, pedestrians, bicyclists, motorists, persons with disabilities, movers of commercial goods, and public transportation users of all ages and abilities are able to safely access and use streets and transportation modes to reach their destinations. In addition to street classifications, the Circulation Element outlines traffic management strategies, measures to address parking, and identifies the need for Park-and-Ride facilities. According to the Circulation Element, the City will monitor the need for Park-and-Ride facilities near SR-210 (Rialto, 2010).

Safety and Noise Element

The Safety and Noise Element of the General Plan Rialto emphasizes a proactive approach to planning which involves mitigating hazards present in the environment that may adversely affect property and threaten lives. The Safety and Noise Element addresses potential safety conditions in the City related to seismic and geologic, flood, fire, and wind hazards, as well as hazardous

materials, gangs, and emergency response. The Safety and Noise Element recognizes the importance of providing a safe living environment for the City's residents and, while the Safety and Noise Element acknowledges that the City may not be able to prevent most hazards, it can set forth policies that can help minimize their effects. By addressing issues of crime, hazardous materials use, and other human caused conditions, and preparing a response to uncontrollable natural hazards, such as earthquakes and fires, the Safety and Noise Element states that Rialto can be better prepared to deal with emergency situations and adverse conditions and events that threaten the community (Rialto, 2010). The intent of the Noise section is to set goals to limit and reduce the effects of noise intrusion on sensitive land uses and to set acceptable noise levels for varying types of land uses. To this end, the City has the authority to set land use noise standards and place restrictions on private activities that generate excessive or intrusive noise.

Housing Element

The Housing Element provides the City with a coordinated and comprehensive strategy for promoting the production of safe, decent, and affordable housing for all within the community. According to the Housing Element, housing and neighborhood conservation are important to maintaining and improving quality of life. According the Housing Element, although the majority of the City's housing stock is new, some of the older neighborhoods show signs of inadequate maintenance and deterioration (Rialto, 2010). Under the Housing Element, efforts to improve and revitalize housing must not only address existing conditions, but also focus on preventative repairs to ensure the quality of the housing stock is maintained. The Housing Element also encourages a balanced inventory of housing by promoting and encouraging housing development that meets the needs of all socioeconomic segments of the community and region.

(b) City of Rialto Municipal Code

Title 18 of the City of Rialto Municipal Code serves as the City's Zoning Ordinance. All development projects within the City are subject to compliance with the regulations and standards set forth in the Municipal Code. Title 18 includes provisions, procedures, and specific use and design standards for each of the City's zoning districts. Title 18 also provides standards related to flood plain management, Alquist-Priolo Special Studies zones, transportation control, signage, specific plans, design guidelines and other issue areas, designed to mitigate or avoid potential environmental impacts. The Site's existing R-1 A zone (Sec. allows one single family home, within a minimum lot area of 10,000 square feet and 2 ½-story (35-foot) maximum building height. Chapter 18.78, Specific Plans, gives the city council authority to prepare, adopt and implement specific plans for areas within the incorporated city and unincorporated sphere of influence.

The purpose and intent of Chapter 18.78 is to establish uniform procedures for the adoption and implementation specific plans and set forth detailed regulations, conditions, programs, and proposed legislation necessary or convenient for the systematic implementation of the General Plan in regard to the location of uses together with regulations establishing height, bulk, and setback limits; the location and extent of existing or proposed streets, standards for building density, permissible types of construction and provisions for services. With regard to specific plans, this chapter also establishes standards for conservation, development, and utilization of

natural resources, implementation of the open space element of the General Plan, and other requirements as deemed necessary (Sec. 18.78.050). Sec. 18.78.060 sets forth procedures for the adoption or amendment of specific plans, including the initiation of specific plans by the Planning Commission and authorization by resolution by the City Council.

3. Project Impacts

a. Methodology

The analysis of potential land use impacts considers consistency of the Specific Plan with adopted plans and policies that regulate land use on the Project Site. The determination of consistency with applicable land use policies and ordinances is based upon a review of the previously identified planning documents that regulate land use or guide land use decisions pertaining to the Project Site. CEQA Guidelines Section 15125(d) requires that an EIR discuss inconsistencies with applicable plans that the decision-makers should address. Evaluations are made as to whether a project is inconsistent with such plans. Projects are considered consistent with regulatory plans if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals. The intention of the evaluation of consistency with regulatory plans is to determine if non-compliance would result in a significant physical impact on the environment.

b. Significance Thresholds

Appendix G of the *CEQA Guidelines* provides a checklist of questions to assist in determining whether a proposed project would have a significant impact related to various environmental issues including land use and planning. Based on the following issue areas identified in Appendix G of the *CEQA Guidelines*, a significant impact to land use and planning would occur if the Project would result in one or more of the following:

Threshold 1: Physically divide an established community (refer to Chapter 6, *Other Mandatory CEQA Considerations*, and the Initial Study contained in Appendix A. No impact would occur in this regard.);

Threshold 2: Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect (refer to Impact Statement LU-1 below); or

Threshold 3: Conflict with any applicable habitat conservation plan or natural community conservation plan (refer to Section 4.C, *Biological Resources*, of this Draft EIR for a discussion of impacts and mitigation measures related to biological resources.).

c. Project Design Features

Future implementation of the proposed Specific Plan would require several necessary approvals, including the following:

- A General Plan Amendment from the existing Residential 6 designation to the Specific Plan designation;
- A zone change to change the zoning of the property from Single-Family Residential (R-6000) to the Pepper Avenue Specific Plan;
- Adoption of the Pepper Avenue Specific Plan;
- Certification of an Environmental Impact Report (EIR);
- Clean Water Act (CWA) Section 404 Permit from United States Army Corps of Engineers, as necessary;
- CWA Section 401 Permit from the Santa Ana Regional Water Quality Control Board, as necessary;
- Streambed Alteration Agreement under Section 1602 of the California Fish and Game Code from the California Department of Fish and Wildlife, as necessary;
- Formal consultation with the U.S. Fish and Wildlife Service pursuant to Section 7 of the Federal Endangered Species Act, as necessary;
- Subsequent discretionary approvals (i.e., Conditional Permit, Site Development Permit); and
- Other permits or approvals, as necessary.

The Specific Plan would comprise nine planning areas (PAs) and is designed to be a commercial center with community commercial and business park uses, as well as natural open space, public facility uses, and the option to incorporated multi-family residential uses. The Specific Plan would focus on creating a high-quality development that efficiently utilizes the property and provides commercial opportunities to residents of Rialto. The Specific Plan would provide 36.2 acres of land for community commercial uses to be zoned PA 1, PA 2, PA 5, and PA 6; 9.4 acres of residential overlay uses to be zoned PA 3; 26.5 acres for open space to be zoned PA 9; 6.3 acres of community commercial overly to be zoned PA 7 and PA 8; and 13.7 acres of public facility uses to be zoned PA 4. These areas would total 95.1 acres. The remaining 6.6 acres of the 101.7-acre site would comprise the Pepper Avenue right of way. Two maximum development scenarios could occur in association with the proposed commercial and residential overlay areas. As discussed in Chapter 2, Project Description, of this EIR, Scenario 1 would allow a maximum of 462,000 square feet of retail uses and 125,000 square feet of business park uses.

Scenario 2 would allow a maximum of 275 residential units, 346,000 square feet of retail uses, and 125,000 square feet of business park uses. Potential land uses and development for each of the planning areas are summarized in Table 2-1, Planning Area Land Use Summary, in Chapter 2 of this EIR.

Community commercial uses would be permitted within PAs 7 and 8, or these areas could be retained as open space with the allowable density transferred to other community commercial areas within the Project Site. These uses would primarily be located adjacent to the 210 Freeway

and Pepper Avenue. Community commercial designated areas would include uses such as retail, office, business park, medical office, light industrial and other uses typically found within business parks and community shopping centers. Buildings would be up to four stories in height, although the Concept Plan anticipates two-story commercial buildings.

Based on market conditions and the discretion of the private property owners, up to 275 multi-family residential units could be developed within PA 3 in lieu of up to 116,000 square feet of retail uses. The multi-family residential units could be constructed within buildings up to a maximum of three stories and at a density of up to 30 dwelling units per acre. No parks are proposed within the Specific Plan area; however, the Specific Plan is proposing that at minimum, PA 9 would remain as open space. PA 9 consists primarily of RAFSS habitat and jurisdictional drainage features located on/near its eastern boundary.

If PA 7 and PA 8 are not improved with community commercial uses, they would remain as open space. Thus, the total open space could increase to 35.8 acres under this scenario. Similar to PA 9, PAs 7 and 8 consist primarily of RAFSS habitat, with jurisdictional drainage features just beyond their western boundaries. Uses allowed within both community commercial and open space zones would be allowed in the Community Commercial Overlay.

The designated Public Facility area (PA 4) is currently developed with the WVWD Facility. Although no future development is proposed on this portion of the Site, WVWD is currently considering improvements to the facility including the addition of a 1million-gallon steel-welded reservoir and new pump station within a concrete masonry building to be completed in 2016-2017.

As part of the Specific Plan, Chapter 3, Plan Elements, discusses the various plan elements for the Specific Plan including the Land Use Plan, Open Space and Conservation Plan, Circulation Plan, Grading Plan and Infrastructure Plans (water, sewer, and drainage). Chapter 4, Design Guidelines, contains the site planning, architectural, and landscaping design guidelines for the Specific Plan. The purpose of these guidelines is to ensure that the Project would develop as a quality retail center with consistent design elements. Chapter 5, Development Standards, establishes the permitted uses and physical development standards for development in the Specific Plan Project Site. Standards in the Specific Plan supersede those of the Rialto Municipal Code, unless otherwise stated. Definitions are the same as described in Chapter 18.08 of the Municipal Code, except as otherwise defined. Land use designations include community commercial, open space, public facility, residential overlay and community commercial overlay. The plans, guidelines and standards included in the Specific Plan serve to reduce and/or minimize impacts, as discussed throughout the environmental analysis in this EIR.

d. Analysis of Project Impacts

(1) Consistency with Applicable Plans and Policies

Threshold LU-1: The Project would create a significant impact if it would conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Impact Statement LU-1: Implementation of the Pepper Avenue Specific Plan would not conflict with applicable land use plans, policies, or regulations of an agency with jurisdiction over the Project, including California Government Code 65450, SCAG policy documents, the City of Rialto General Plan, and the City's Zoning Ordinance, adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, land use impacts are considered less than significant.

(a) California Government Code Section 65450

The Pepper Avenue Specific Plan would meet the requirements of State of California Government Code Section 65450, which supersedes local codes in regulating the development of and approval of specific plans. The Specific Plan Chapter 3.0, Plan Elements, would meet the State's statutory requirement for information regarding the distribution, location, and extent of the uses of land, including open space, within the area covered by the plan and the proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan. Chapter 2.0, Planning Context; Chapter 4.0, Design Guidelines; Chapter 5.0, Development Standards would meet the State's requirement for the Specific Plan to set forth standards and criteria by which development would proceed. Chapter 6.0, Implementation would meet the State's requirement for a program of implementation measures including regulations, programs, public works projects, and financing measures necessary to carry out the development standards set forth in the Specific Plan. Also, as required by Government Code Section 65450, Specific Plan Appendix A provides a statement of the relationship of the specific plan to the general plan. Because the proposed Specific Plan would comply with the requirements of Section 65450, it would not conflict with these established regulations. Land Use impacts with respect to Government Code Section 65450 would be less than significant.

(b) SCAG Regional Transportation Plan/Sustainable Communities Strategy

Table 4.F-1, *Consistency of the Pepper Avenue Specific Plan with Goals of the RTP/SCS*, below, evaluates the consistency of the Specific Plan with the applicable goals and policies of the 2012-2035 SCAG RTP/SCS Goals 1 through 9. As shown in Table 4.F-1, the Specific Plan would not conflict with the applicable goals and policies of the RTP/SCS with respect to regional transportation infrastructure, mobility and accessibility, and non-motorized transportation. The Project would provide a new development with retail uses, work opportunities and potential residential uses in proximity to an existing regional freeway and proposed interchange, as well as

established industrial and residential communities. The Project would provide a potential bridge to the residential community and existing Frisbie Park, which would maximize pedestrian access. Because the Specific Plan would be consistent with the policies of the 2012-2035 RTP/SCS, impacts related to consistency with the RTP/SCS would be less than significant.

TABLE 4.F-1
CONSISTENCY OF THE PEPPER AVENUE SPECIFIC PLAN WITH GOALS OF THE 2012-2035 RTP/SCS

RTP/SCS Goals	Evaluation of Consistency
Goal 1: Align the plan investments and policies with improving regional economic development and competitiveness.	**Consistent.** The City of Rialto would increase economic opportunities for the community and region through implementation of the Specific Plan and allowing development of a currently under-utilized site, thus, aligning public policy with economic growth. Consistent with RTP/SCS policies, the Specific Plan would provide regional economic opportunities in an infill area located adjacent to regional transportation systems.
Goal 2: Maximize mobility and accessibility for all people and goods in the region.	**Consistent.** The Specific Plan would encourage commercial, light industrial, and potential residential uses near the new 210 Freeway/Pepper Avenue interchange, and would also provide circulation improvements to Pepper Avenue, pedestrian and bicycle infrastructure, and potential bus shelters that would foster the efficient movement of all people and goods.
Goal 3: Ensure travel safety and reliability for all people and goods in the region.	**Consistent.** The Specific Plan would provide for street improvements, such as new or modified signals, additional lanes, turning lanes, medians, and other reconfiguration to reduce traffic congestion and support alternative modes of travel, such as cycling, and pedestrian access. Pepper Avenue would contain adequate right-of-way to accommodate public transit. Improvements would be designed and constructed to meet applicable safety requirements and design standards that would ensure that travel safety and reliability are maximized.
Goal 4: Preserve and ensure a sustainable regional transportation system.	**Consistent.** The Specific Plan entails future development projects within the Specific Plan boundaries. Developers would be required to construct on-site traffic system improvements as well as pay applicable fair-share contributions to local and regional off-site improvements to mitigate project-related traffic impacts. With implementation of applicable improvements, the Specific Plan would not hinder the preservation or sustainability of the regional transportation system.
Goal 5: Maximize the productivity of our transportation system.	**Consistent.** As noted above, the Specific Plan would require the construction of traffic improvements or payment of applicable fees to help fund additional improvements, which would reduce the Specific Plan's impact on, and maximize the productivity of, the region's transportation system.
Goal 6: Protect the environment and health of our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking).	**Consistent.** The Specific Plan includes a bicycle and pedestrian network and enhancements that encourage biking and walking. The Circulation Plan identifies the development of Class II bike lanes on Pepper Avenue and a potential pedestrian bridge to connect the retail uses with Frisbie Park to the west. Bicycle storage is required under Chapter 18.58 of the Zoning Code for uses within the Project Site. Pedestrian crossings for major streets would be delineated using textured, stamped, or stained paving techniques. Crossing distances would be reduced with curb extensions where feasible. Bollards, landscaping buffers, and other techniques that define pedestrian spaces would also be utilized as appropriate. Other pedestrian

RTP/SCS Goals	Evaluation of Consistency
	enhancements include the use of street furniture, such as benches, planters, bike racks, pedestrian level signage, lighting fixtures, and trash receptacles. In areas with high levels of expected pedestrian activity developers would be encouraged to generate visual interest at the pedestrian level. The variety of goods, services, businesses, and potential housing anticipated under the Project would provide for pass-by/local interaction, thus reducing overall vehicle trips.
Goal 7: Actively encourage and create incentives for energy efficiency, where possible.	**Consistent.** The Design Guidelines Element of the Specific Plan includes sustainability elements including compliance with CalGreen building standards, which are intended to achieve significant reductions in greenhouse gas emissions, energy consumption, and water use. Development within the Project is encouraged to implement some of the strategies of the Energy Star program, an energy performance rating system developed by the U.S. Department of Energy and the EPA. Development associated with the Specific Plan would comply with City of Rialto GHG reduction measures and the San Bernardino County Regional Greenhouse Gas Reduction Plan.
Goal 8: Encourage land use and growth patterns that facilitate transit and non-motorized Transportation.	**Consistent.** The Specific Plan would be developed adjacent to the SR-210/Pepper Avenue interchange, which would maximize accessibility for future transit. The Project also allows potential pedestrian access (a bridge) between the Site and adjacent Frisbie Park and residential neighborhood to encourage non-motorized access.
Goal 9: Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.	**Not Applicable.** This goal relates to SCAG's ongoing efforts to maintain security within the regional transportation system, which would not be affected by the Specific Plan.

SOURCE: ESA PCR, 2016.

(c) City of Rialto General Plan

Table 4.F.3, *Comparison of the Pepper Avenue Specific Plan with Applicable Policies of the General Plan*, evaluates the Specific Plan's consistency with the applicable goals and policies of the City of Rialto General Plan. Goals and policies associated with design and aesthetic considerations, such as community design, commercial and industrial development design, and planned development design are evaluated in Section 4.A, Aesthetics, of this EIR. As shown in Table 4.F-2, the Specific Plan would not conflict with the applicable goals and policies of the General Plan's Land Use, Conservation, Economic Development, Circulation, Safety and Noise, and Housing Elements. Although a General Plan Amendment would be required to change the existing land use designation from "Residential 6" to "Specific Plan," once the amendment has been adopted, the Project would not conflict with the goals and policies of the General Plan. Therefore, the Specific Plan would be considered consistent with the General Plan and land use impacts related to General Plan consistency would be considered less than significant.

TABLE 4.F-2
COMPARISON OF THE PEPPER AVENUE SPECIFIC PLAN WITH APPLICABLE POLICIES OF THE GENERAL PLAN

Policies	Evaluation of Consistency
Land Use Element	
Neighborhood Preservation	
Goal 2-8: Preserve and improve established residential neighborhoods in Rialto. Policy 2-8.1: Promote neighborhood identity and preservation of individual neighborhood character by preserving or creating neighborhood gateway features. This includes the Las Colinas Core Group and the North End (Pepper Avenue) Neighborhood Group. Policy 2-8.3: Require all new housing built adjacent to designated major or secondary highways to face a residential street, with driveways on the side street. Require landscaped barrier walls to preserve the privacy of residential side yards and protect them from traffic noise and pollution.	**Consistent.** The Project site is separated from the North End Neighborhood Group by an unnamed wash. The southern portion of the site consists of the WVWD facility and a wash. These uses will not be altered as part of the Project. The Project includes gateway features, which will announce the Project site as the northeastern entrance into Rialto. The Project includes an option to allow for multi-family residential in the eastern portion of the Project site in PA3. This area is not located adjacent to Pepper Avenue and will require internal private drives to access Pepper Avenue. The Design Guidelines chapter of this Specific Plan identifies that the multi-family residential should be designed to interact with the adjacent commercial uses. However, if a residential development is adjacent to the side or rear portions of the commercial development, the residential development should have walls and/or landscape that will be provided between the residential and commercial developments to function as a barrier.
Incompatible Land **Uses**	
Goal 2-9: Protect residential, schools, parks, and other sensitive land uses from the impacts associated with industrial and trucking-related land uses, as well as commercial and retail areas. Policy 2-9.1 Require mitigation and utilize other techniques to protect residential development and other sensitive land uses near industrial land uses or within identified health risk areas from excessive noise, hazardous materials and waste releases, toxic air pollutant concentrations, and other impacts.	**Consistent.** The design of the Project, identified in the Specific Plan, will buffer existing residential development from proposed uses by preserving the natural drainage feature in the western and southern portions of the site. The significance of impacts resulting from retail and business park uses upon surrounding residential neighborhoods will be buffered by this open space. Furthermore, hazardous and toxic wastes will not occur from permitted uses on the site. Should any hazardous materials associated with certain uses be proposed (i.e. service stations), a Conditional Development Permit will be required to study and appropriately mitigate any potential impacts from hazardous materials. Additionally, the Project will implement all applicable mitigation measures to reduce or eliminate potential impacts.
Public Realm - Gateways	
Goal 2-10: Create distinctive gateways at all entry points into Rialto and for individual districts or neighborhoods. Policies 2-10.1: Continue the use of monument signs at focal points within the community and at major and minor gateways. Establish unified entry treatments at major entries into the City. 2-10.2: Design and implement themed landscape treatments near freeway off- and on-ramps to announce entry into Rialto. 2-10.3: Encourage new and established neighborhoods to provide ground signs and landscaping at a major street entrance to reinforce their identity.	**Consistent.** Signage and monumentation for the Pepper Avenue Specific Plan Project is outlined in Chapters 4, Design Guidelines and 5, Development Standards. Since the Project is the gateway to the northeastern area of the City, the Project will incorporate freeway-oriented signage, where appropriate, and monument signage that will contribute to the overall sense of place. The signage shall be well designed and will be consistent with the Project's high quality architecture. Landscaping within the Pepper Avenue median and parkway is planned to be implemented as part of the Project. This landscape theme is consistent with the existing landscape already installed in Pepper Avenue, as identified in Chapter 4, Design Guidelines. This landscaping will be attractively designed and announce the entry into both the Project and the City. Medians and parkways on the "main street" within the Project will reinforce the commercial identity by utilizing special landscaping treatments. Special signage will be incorporated into the Project and tailored in design to effectively communicate directional information throughout the site and establish retail and/or residential character.
Public Realm - Streetscapes	

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Goal 2-11: Design streetscapes in Rialto to support and enhance the City's image as a desirable place to live, work, shop, and dine. Policies 2-11.1: Require the screening of commercial or industrial parking areas, storage yards, stockpiles, and other collections of equipment from the public right-of-way. 2-11.2: Provide and maintain street trees and parkway landscaping within the public right-of-way for developed properties within Rialto. Require private development to do the same as per City design regulations. 2-11.4: Incorporate street trees and other landscape treatments along corridors to provide sufficient shade canopy and promote pedestrian comfort. 2-11.5: Require that projects with perimeter walls (including gated residential communities) provide an interesting streetscape, with pedestrian access to major travel ways.	**Consistent.** On the east side of Pepper Avenue, the Project will screen loading and service areas from public view through the building orientation, design, walls and/or landscape. On the west side of Pepper Avenue, walls and landscape screen will detract from the overall aesthetic of the site and be an inappropriate buffer from the adjacent natural open space. However, service areas will be screened by using unique architectural and landscape treatments, as indicated in Chapter 4, Design Guidelines. Also, these buildings require architecture and appropriate landscape treatments on all exposed elevations, similar to the level of design on the front elevation. The Design Guidelines include sample, innovative treatments to reduce the visual impact of service areas. Medians are provided, where feasible, within the public right-of-way of the Project. Trees, shrubs and ornamental landscaping shall be planted within medians and parkways throughout the public realm. Ornamental and functional landscaping within the private realms of the project shall be consistent with that of the public realm, such that landscaping in both areas demonstrates the desired Mediterranean, "Veneto" aesthetic and contributes to the overall sense of place of the Project. Pedestrian comfort will be considered when designing landscaping along sidewalks and pedestrian paths. Where feasible, canopy trees will be planted to shade pedestrian walkways
Public Realm - Pedestrian Friendly Environment	
Goal 2-12: Design new streets to be pedestrian friendly. Policies 2-12.1: Require the use of attractive street furniture (benches, trash receptacles, planters, bicycle racks) in the Downtown area, along Foothill Boulevard, and other highly visible areas to communicate the City's identity and pride. 2-12.2: Use textured paving or similar design features to define pedestrian crossings, particularly near pedestrian activity areas such as Downtown. 2-12.3: Install curb extensions (i.e., bulb out or similar enhancements) at pedestrian crossings to shorten the crossing distance required, wherever feasible. Additional pedestrian protections, including bollards and defensible space landscape treatments, should be utilized as well. 2-12.4: Enhance pedestrian walkways directly under building canopies by one or more of the following techniques: interlocking or textured paving, turf block walls, theme plantings, trees projecting through canopies, bollards and kiosks, pavilions or gazebos, and trellises and arbors planted with flowering vines. 2-12.5: Maximize potential pedestrian connections through the use of highly visible gateways, walkways, and directional signs and the installation of traffic-calming devices where appropriate. 2-12.6: Require landscape screens in new commercial developments larger than 15,000 square feet directly in front of the stores rather than leaving the façade barren. The intent of the landscape screen is to improve the scale by visually lowering the building height and mass without impeding access or identity of the buildings function. 2-12.7: Shade bus shelters and other outdoor use areas from the sun. Commercial projects along major corridors in Rialto shall incorporate at least one bus shelter, taxi stop, bicycle rack, and/or similar transportation or	**Consistent.** The Project will enhance pedestrian experience by creating an attractive and safe environment suitable and desirable for pedestrian use. As identified in Chapter 4, Design Guidelines, the design and use of street furniture, such as benches, planters, bike racks, pedestrian level signage, lighting fixtures, trash receptacles, etc., will bolster the Project's character and create an approachable, enjoyable environment. In areas with high levels of expected pedestrian activity, textured, stamped, or stained paving will be encouraged to generate visual interest at the pedestrian level. Pedestrian crossings for major streets will be delineated using one of the aforementioned paving techniques, and will reduce the crossing distance by using curb extensions where feasible or appropriate. Bollards, landscaping buffers, and other techniques that define pedestrian spaces can also be utilized as appropriate. Highly visible gateways will communicate the pedestrian nature of the walkway and denote the beginning and end of major pedestrian paths. Landscaping, signage, and traffic calming design features installed at these pedestrian activity areas will further encourage pedestrian usage. As described in Chapter 4, Design Guidelines, landscape screening shall be implemented upon commercial buildings that exceed 15,000 square feet in size to reduce the negative visual impacts of large, uninterrupted facades upon the pedestrian and to create articulation that improves the pedestrian experience. Pepper Avenue north of Baseline Road does not currently have any public transit services. With the recent opening of the Pepper Avenue extension, bus services could be extended to the Project site. Chapter 5, Development Standards requires that all major developments (new construction over 20,000 square feet) shall work with Omnitrans in determining if bus services shall service the Project site. Should services be provided to the site, the developer shall install a bus shelter consistent with the Mediterranean "Veneto" architectural theme of the Project. Bicycles racks are also to be provided as part of the Project.

Policies	Evaluation of Consistency
pedestrian features. The design of these features shall be consistent with the identity, feel, and theme of that corridor.	
Public Realm - Signage	
Goal 2-13: Achieve quality aesthetic design of all signage in the City of Rialto. Policies 2-13.2: Require consistent design quality and themes for directional signage along public streets. 2-13.3: Require that all ground signs incorporate landscape treatment to reduce visual height and impact from the street.	**Consistent.** Directional, tenant, and pageantry signage shall be placed in a logical manner that effectively orients and directs people through the site. Rather than detracting from the aesthetic experience of the site, all signage will exhibit thoughtful and consistent design that will be pleasing, rather than visually obstructive. Interplay between landscape and signage elements shall reduce the negative visual impacts of signs while emphasizing and contributing to the architectural character of the Project.
Public Realm – Public Art	
Goal 2-15: Establish a public art program that engages the public and enriches the pedestrian experience. Policies 2-15.1: Encourage the incorporation of public art into large-scale development projects. 2-15.3: Encourage the creation of art pieces that represent the agricultural history of the community, family-first values, and vision for the future.	**Consistent.** As described in Chapter 4, Design Guidelines, public art is encouraged be incorporated into high visibility areas of the Project. Specifically, public art should be considered for implementation along the “main street”, the community commercial plaza, and the welcome plaza adjacent to the potential pedestrian bridge. This art may take the form of murals, sculptures, fountains, unique landscaping features or architectural elements that are specifically designed for the Project and contribute to the high-quality design and character of the Specific Plan area. Public art is encouraged to represent the agricultural history of the City and the site, or the community, family-first or family-first values.
Private Realm	
Goal 2-16: Improve the architectural and design quality of development in Rialto. Policies 2-16.1: Require new development and construction to exhibit a high level of quality architectural design to emphasize community uniqueness, individuality, and historical references. 2-16.2: Require architectural identity for individual commercial corridors, while also encouraging a variety of architectural features to create visual interest and pedestrian scale. 2-16.3: Discourage architectural monotony. 2-16.4: Discourage the design of boxy structures; emphasize articulation of the front façade and the horizontal plane with multi-story structures. 2-16.5: Require developers to vary building and parking setbacks along the streetscape to create visual interest. 2-16.6: Require architectural treatments on all façades facing rights-of-way, public streets, and alleys, including windows, doors, architectural details, and landscape treatment.	**Consistent.** Chapter 4, Design Guidelines include provisions that will ensure a high-level of quality architectural design that is consistent throughout the Project and provides a unique retail experience within the City of Rialto. Where appropriate, historical references will be made through the incorporation of design themes and public art. Variations in scale, massing, setbacks and design of commercial areas will be designed to reinforce the identity of the Project through architecture style and thematic landscaping, while allowing for unique and interesting architectural features throughout the planning areas. Highly articulated façades and rooflines will create visual interest and discourage architectural monotony.
Goal 2-17: Provide high-quality and environmentally sustainable landscaping. Policies 2-17.1: Require the planting of street trees along public streets and inclusion of trees and landscaping for private developments to improve air shed, minimize urban heat island effect, and lessen impacts of high winds.	**Consistent.** The Project will comply with these policies by requiring medians and parkways in the right-of-way and other public realms to be planted with trees and thoroughly landscaped with ornamental drought tolerant landscaping. Trees planted within community commercial and multifamily residential areas shall be dense enough to provide shade and will minimize urban heat island effect, especially within parking lots and open spaces. As indicated in Section 4.8, Sustainable Design Strategies, the Project encourages implementation of a design that drought

Policies	Evaluation of Consistency
2-17.2: Require all new development to incorporate tree plantings dense enough to shade and beautify residential and commercial areas. 2-17.3: Require the use of drought-tolerant, native landscaping and smart irrigation systems for new development to lower overall water usage.	tolerant, incorporates the use of state-of-the-art irrigation controllers, and green waste mulch to reduce overall water usage, as compared to developments consisting of turf.
Goal 2-18: Protect Rialto's small-town character. Policies 2-18.1: Require all new development and renovations within residential neighborhoods to be consistent with the existing scale, massing, and landscaping of that neighborhood. 2-18.2: Protect, to the extent feasible, the natural character of the areas bordering or in close proximity to the Santa Ana River and Lytle Creek.	**Consistent.** The Specific Plan design considers the scale, massing, landscaping and typology of the existing development near the Project site. The site is currently undeveloped, and is close to some existing single-family homes, across a natural wash to the south and west of the Project site. This neighborhood will be buffered by the large natural open space that encompasses the natural drainage features in PA 9. Furthermore, height restrictions for the Project are similar to those in other commercial areas of the City. Given the distance from existing single-family homes and the height limitations of the Project, there are no inconsistencies in scale, massing, and landscape between the Project site and the nearby single-family residential. The Project preserves a large open space wash that will continue to function as a natural habitat area and drainage feature that flows into Lytle Creek.
Residential Design	
Goal 2-19: Encourage neighborhood preservation, stabilization, and property maintenance. Policies 2-19.1: Require that new construction, additions, renovations, and infill developments be sensitive to neighborhood context and building form and scale. 2-19.2: Encourage property maintenance by requiring new development to submit precise plans of design to maintain landscape areas that incorporate property maintenance standards from the City's property maintenance ordinance. 2-19.5: Integrate residential developments with their built surroundings, and encourage a strong relationship between dwelling and the street.	**Consistent.** Due to the height and massing restrictions including within Chapter 4, Design Guidelines and Chapter 5, Development Standards of this Specific Plan, the new residential development will respect the scale and massing of these nearby neighborhoods. Additionally, the Project's Multi-Family Overlay zone is located on a lower grade than the nearby single-family residential. With the multi-family portion limited to three stories in height and the distance of the multi-family housing from the existing single-family homes (1,500 feet), the multi-family housing will not be incompatible with the nearby single-family homes. As mentioned in Chapter 5, Development Standards, plans for future development will include the specific design and maintenance standards identified in the City's Landscaping Maintenance specifications. Chapter 4, Design Guidelines include design guidelines that will ensure development within the multi-family overlay zone will integrate into surrounding development, with units having a strong interrelationship with the street and open spaces in PA3. The multi-family development within the overlay zone will be designed so that it does not appear as a "residential island," isolated amid community commercial uses. The multi-family residences will be physically separated from community commercial uses, but require strong pedestrian connections between the uses.
Goal 2-20: Require high-quality multi-unit design, landscaping, and architecture. Policies 2-20.1: Require multi-unit buildings design to be visually and architecturally pleasing by varying the height, color, setback, materials, texture, landscaping, trim and roof shape. 2-20.2: Do not allow box-like forms with large, unvaried roofs by using a variety of building forms and roof shapes by creating clusters of units, variations in height, setback, and roof shape. 2-20.3: Require use of porches, stairs, railings, fascia boards, and trim to enhance multi-unit buildings'	**Consistent.** As identified in Chapter 4, Design Guidelines, multi-unit residential buildings shall be architecturally pleasing by incorporating varying height, color, setback, materials, texture, landscaping, trim and roofs within the multi-family overlay zone. These design features will create visual interest and contribute to the Mediterranean, "Veneto" character of the Project. Functional aspects of the unit designs, such as porches, stairs, and railing shall be designed to be aesthetically appealing, consistent with the desired community aesthetic while performing their practical purpose as a functional architectural element. As described in the design guidelines, units should be clustered and will incorporate ground level entries that face the street to promote a strong relationship between the residences with the public realm. Parking lots should be located in the rears to reduce the visual impact of parked cars upon the public realm, and

Policies	Evaluation of Consistency
character. 2-20.4: Provide for multi-unit buildings to relate to the street and be located to reinforce street frontages. 2-20.5: Emphasize private, ground-level entries to individual units so that primary building entries are prominent and visible. 2-20.6: Require pedestrian accessibility to adjacent uses with paseos, gates, pedestrian walkways, crossings, and sidewalks. 2-20.7: Require parking lots to be located at the rear or side of a site to allow a majority of dwelling units to front on the street. 2-20.8: Encourage that each unit have some form of useful private open space, such as a patio, porch, deck, balcony, yard, or shared entry porches or balconies.	promote residential character of the multifamily residential zone by having units fronting onto the streets/drives. As identified in Chapter 5, Development Standards, each individual multi-family unit will be required to have some form of private open space, such as a patio or balcony. Residential projects within the multi-family overlay will have a series of internal sidewalks, paseos and crossings to provide a pedestrian-friendly environment, and to connect the dwellings to the community commercial uses and facilitate access between the two uses.
Planned Development	
Goal 2-21: Ensure high-quality planned developments in Rialto. Policies 2-21.1: Require the provision of landscape buffers, walls, additional setbacks, and landscaped parking lots as buffers between commercial and/or industrial uses with residential land uses. 2-21.2: Require that the layout of units and/or buildings be staggered to maximize visual interest and individual identity. 2-21.3: Discourage rectangular building footprints that lack visual interest or articulation along street frontages, and encourage the arrangement of structures on the site to allow for adequate screening of parking and loading areas as well as alleys on all industrial and commercial sites. 2-21.4: Encourage creative site planning, making use of patio homes, zero lot line units, planned unit “cluster” development, attached townhouse products, and auto courts. 2-21.5: Encourage the clustering of residential units which provide semi-private common areas, maximize views, and provide passive open space and recreation uses within multi-unit developments. 2-21.6: Encourage developments to incorporate meandering greenbelts into subdivision projects, particularly along trails, collector streets, secondary streets, and major highways, protected environmental areas, or other special features. Bicycle and pedestrian trails should be connected with similar features in neighboring projects so that upon completion newer neighborhoods will be linked at the pedestrian level. 2-21.7: Require parkways to be placed on the outside of the public sidewalk immediately adjoining the curb to provide shade for pedestrians, and provide a canopy of trees to be either uniformly spaced or informally grouped. 2-21.8: Require that new residential subdivisions adjacent to secondary or major highways be oriented inward and provided with buffers to reduce exposure to traffic and noise.	**Consistent.** The Design Guidelines chapter of this Specific Plan identifies that the multi-family residential should be designed to interact with the adjacent commercial uses. However, in the event that the residential development is adjacent to the side or rear portions of the commercial development, the residential should have walls and landscape to function as a barrier to reduce impacts associated with an undesirable commercial edge. In accordance with Chapter 4, Design Guidelines, multi-family units shall be staggered and designed to generate visual interest and contribute to the Mediterranean, “Veneto” character of the overall project. Articulated walls and footprints will discourage monotony in architecture, and a well-designed and creative site plan will promote the livability, walkability, aesthetics, and inviting open spaces. Sidewalks and paseos within each developed planning area will make internal connections to various points of interest within that planning area, and will also connect to surrounding uses. Public parkways will be placed on the outside of the sidewalk, separating the curb and the pedestrian walkway. Trees will be planted in these landscaped parkways to shade sidewalks and encourage walkability. Residential units are only permitted to be located within PA3, which is separated from both Pepper Avenue and the 210 Freeway by community commercial uses.

Policies	Evaluation of Consistency
Commercial and Industrial Development Design	
Goal 2-22: Promote commercial and/or industrial development that is well designed, people-oriented, environmentally sustainable, sensitive to the needs of the visitor or resident, and functionally efficient for its purpose. Policies 2-22.1: Require that developments incorporate varied planes and textures and variety in window and door treatments on building façades. 2-22.2: Encourage architecture which disaggregates massive buildings into smaller parts with greater human scale. 2-22.3: Require that landscape plantings be incorporated into commercial and industrial projects to define and emphasize entrances, inclusive of those areas along the front of a building facing a parking lot. 2-22.4: Require all major commercial developments to incorporate theme elements to create a distinct identity, foster individuality, and provide gathering opportunities. 2-22.5: Require developments to provide pedestrian and vehicle connections and pathways between parking lots at the rear and front of buildings. 2-22.6: Require delivery areas to be separated from pedestrian areas. 2-22.7: Require outdoor storage areas, where permitted, to be screened from public view. 2-22.8: Insist that full architectural treatments and details be provided on all facades visible to the street of development projects.	**Consistent.** As identified in Chapter 4, Design Guidelines, commercial buildings within the Specific Plan are encouraged to be arranged to minimize the appearance of long, unbroken, rectangular axes, where feasible, without compromising the efficiency of the site design and layout. Landscaping will be used to visually "break up" long, straight axes. For smaller buildings, treatments may include clustering them together around a small plaza, green space, or other focal point. To the extent feasible, large commercial buildings should be visually broken into smaller components by changes in color, texture, rooflines, window and door spacing, or massing. Landscaping and vertical trees will also help to visually break up building massing, and will also be used to highlight building entries and architectural features. Commercial building facades will incorporate varied planes, colors, and textures to promote interest. Architectural detailing should take place upon any building façade that is visible from a public street, 210 Freeway, or the unnamed wash to the west and south of the Project site. Community commercial development are encouraged to incorporate theme elements intended to distinguish them from other developments, foster individuality, and promote gathering opportunities. Such elements may include, but are not limited to, outdoor cafes, gateways, kiosks, flag courts, trellises and arbors, bell towers, theme towers, galleries, patios and plazas, water elements, booths, outdoor markets, colonnades, and arcades. Commercial developments will provide either mid-building pedestrian access or fully treated rear entrances. Service and delivery areas shall be separated from pedestrian areas such that they will not interfere with pedestrian traffic and will have minimal aesthetic impact on pedestrian nodes. Any accessory outdoor storage areas will be reviewed as part of the project's design and be appropriately screened from public view.
Parking Lot Design	
Goal 2-23: Minimize the visual impact of parking lots. Policies 2-23.1: Require mature trees and landscaping in off-street parking areas to make them more inviting and aesthetically appealing, and to provide sufficient shading to reduce heat. 2-23.2: Encourage the inclusion of textured paving along pedestrian walkways and under building canopies. 2-23.3: Require use of drainage improvements designed, with native vegetation where possible, to retain or detain water runoff and minimize pollutants into drainage system.	**Consistent.** Chapter 18.58 of the City of Rialto Zoning Code requires that a minimum of 10 percent of the parking area shall be landscaped. Design guidelines are included in this Specific Plan that encourage parking lots to include a combination of landscaping belts, planters, and design features that reduce the massive and unbroken appearance of paved surfaces. Where appropriate and feasible, parking lot drainage design should utilize landscaping planters to reduce runoff. Native vegetation should be planted where possible to reduce the amount of water required for irrigation.
Open Space and Recreation	
Goal 2-24: Take advantage of opportunities to increase and enhance open spaces throughout Rialto. Policy Policy 2-24.1: Identify and explore opportunities for acquisition of land in the Lytle Creek floodplain and fault-impacted areas for use as open space, parkland, or recreational areas.	**Consistent.** A significant portion of the Specific Plan area includes a fault hazard and the portion closest to the identified fault line is zoned as "Open Space." This area of the Project also consists of protected habitat. The potential pedestrian bridge connecting Frisbie Park and the community commercial uses within the Project will provide species information and offer views of the habitat to visitors of the Project site.
Goal 2-26: Maximize open spaces in urban areas. Policies	**Consistent.** As indicated in *Chapter 4, Design Guidelines*, the Project design includes plazas and resting areas within the "main

Policies	Evaluation of Consistency
Policy 2-26.1: Require that private open space be integrated into new development by providing green spaces and landscaped plazas between buildings. Policy 2-26.2: Enhance street corridors by incorporating small green areas, extensive landscaping, and street trees. Policy 2-26.3: Explore opportunities to create pocket parks within urbanized areas for public and/or private use.	street" area, as well as a welcoming plaza at the terminus of the potential pedestrian bridge into the Project. The main street will also feature special landscape treatment on both sides of the street for an aesthetically pleasing pedestrian experience. The Pepper Avenue right-of-way will be enhanced by incorporating street trees, small green areas and extensive landscaping into medians and parkways. Where appropriate, additional private green spaces will be incorporated into the site design. Opportunities for the implementation of pocket parks within the multi-family overlay zone will be reviewed at the subsequent development design-level. In any case, each multi-family residential will be required to provide a minimum of 400 square feet of common open space per dwelling unit, as indicated in Chapter 5, Development Standards.
Recreation	
Goal 2-27: Provide a variety of park facilities that meet the diverse needs and interest of the community. Policy Policy 2-27.1: Establish a Master Plan for Parks and Recreation that achieves a park ratio of 3.0 acres per 1,000 residents, evenly distributes park facilities throughout the community, and contains strategies for funding facilities and maintenance.	**Consistent.** Chapter 5, Development Standards, requires that each multi-family development shall provide a minimum of 400 square feet of open space per unit and will be evaluated at the subsequent development review. This open space may or may not qualify as "parkland" and will be dependent on the ultimate size, location and design of the common open space area. Should an individual project provide less parkland than the 3.0 acres per 1,000 residents, the Project shall provide additional, off-site parkland or pay park in-lieu fees to meet this requirement.
Conservation **Element**	
Water Resources	
Goal 2-29: Conserve water resources. Policies Policy 2-29.1: Require new development to use features, equipment, technology, landscaping, and other methods to reduce water consumption. Policy 2-29.2: Use reclaimed water as available for irrigation of City parks, median strips, and other public areas, and encourage its use in industrial applications, large turf and expansive landscaped areas, golf courses, mining, and other uses where potable quality of water is not necessary to its application.	**Consistent.** As identified in *Chapter 4, Design Guidelines*, the Specific Plan encourages sustainable building techniques and design strategies intended to help conserve, protect and enhance natural resources in the community. The use of irrigation timers, automatic sprinklers, drip irrigation (where appropriate), low flush toilets, low water use shower heads, and other water conservation measures are strongly encouraged. Native, drought tolerant vegetation will be planted where possible and aesthetically appropriate to reduce the water required to adequately irrigate landscaping. Public education in the form of signage, pamphlets, etc. may be implemented in pedestrian areas near the proposed natural open space to communicate to the community on the importance of surface water quality and conservation.
Sustainable Building **Practices and Energy Conservation**	
Goal 2-30: Incorporate green building and other sustainable building practices into development projects. Policies Policy 2-30.2: Promote sustainable building practices that go beyond the requirements of Title 24 of the California Administrative Code, and encourage energy-efficient design elements, as appropriate. Policy 2-30.3: Support sustainable building practices that integrate building materials and methods that promote environmental quality, economic vitality, and social benefit through the design, construction, and operation of the built environment.	**Consistent.** As identified in Chapter 4, Design Guidelines, sustainable building practices are encouraged, including, but not limited to passive design strategies, low-E/Energy Star windows, use of low VOC paints, wallpapers, and carpets, and minimize turf areas. These practices promote building methods that promote environmental quality, economic vitality and social benefit through the design, construction and operation of the built environment. All construction will meet or exceed Title 24 building standards for energy efficiency, as applicable.
Goal 2-31: Conserve energy resources. Policy Policy 2-31.1: Require the incorporation of energy conservation features into the design of all new construction and site development activities.	**Consistent.** As identified in Chapter 4, Design Guidelines, the Project encourages energy conservation features. All future projects shall meet Title 24 requirements and the California Green Building Standards.

Policies	Evaluation of Consistency
Air Quality and **Climate**	
Goal 2-35: Reduce air pollution emissions from both mobile and stationary sources in the City. Policies Policy 2-35.2: Require that new development projects incorporate design features that encourage ridesharing, transit use, park and ride facilities, and bicycle and pedestrian circulation. Policy 2-35.3: Establish a balanced land use pattern, and facilitate developments that provide jobs for City residents in order to reduce vehicle trips citywide. Policy 2-35.4: Require new development and significant redevelopment proposals to incorporate sufficient design and operational controls to prevent release of noxious odors beyond the limits of the development site.	**Consistent.** As identified in Chapter 4, Design Guidelines, the Project encourages transportation demand management strategies. The Circulation Plan identifies the development of Class II bike lanes on Pepper Avenue and a potential pedestrian bridge to connect the retail uses with Frisbie Park to the west. Bicycle storage is also indicated as a requirement in Chapter 18.58 of the Rialto Zoning Code for uses within the Project site. The Project proposes 462,000 square feet of retail uses and 125,000 square feet of business park uses. Up to 275 multi-family units are permitted as an option, with a corresponding reduction of 106,000 square feet of retail. In either case, the Project is predominately commercial within an area generally consisting of single-family uses, providing Rialto residents jobs for which would result in a reduction of vehicle trips citywide. The Specific Plan does not permit by right any uses that could potentially release noxious odors. Some uses that may release noxious odors will be reviewed under a Conditional Development Permit.
Goal 2-38: Mitigate against climate change. Policy Policy 2-38.3: Provide enhanced bicycling and walking infrastructure, and support public transit, including public bus service, the Metrolink, and the potential for Bus Rapid Transit (BRT).	**Consistent.** The Circulation Plan for the Project identifies the development of Class II bike lanes on Pepper Avenue and a potential pedestrian bridge to connect the retail uses with Frisbie Park to the west. Bicycle racks are also indicated as a requirement for uses within the Project site. Bus services currently are not available to the Project site. However, should Omnitrans desire to offer services to the site, the Specific Plan does not prohibit these services.
Biological Resources	
Goal 2-39: Conserve and enhance Rialto's biological resources. Policy Policy 2-39.2: Pursue open space, wildlife corridors, or conservation easements to protect sensitive species and their habitats.	**Consistent**. Open Space land use designation within the Specific Plan identifies areas within the Project that are preserved as natural habitat open space. The Project's open space functions as a natural drainage feature, but also acts as natural habitat and allows for wildlife migration through the Project into adjacent open spaces and eventually into Lytle Creek.
Economic **Development Element**	
Economic Development	
Goal 3-1: Strengthen and diversify the economic base and employment opportunities, and maintain a positive business climate. Policy Policy 3-1.6: Attract regional commercial uses along the SR-210 and I-10 freeways, particularly at on- and off-ramps, by providing incentives such as fast-tracking review of projects and fee credits.	**Consistent.** The Project will contribute to the economic base of Rialto by providing new retail and business opportunities within the City. These new uses will provide tax revenue to the City and will provide new and existing residents important services and employment opportunities. The Project will allow for businesses of varying size and type to locate within the Project site. It is envisioned that smaller businesses will locate in the "main street" area and larger businesses in other portions of the Project site.
Infrastructure	
Goal 3-6: Require that all developed areas within Rialto are adequately served with essential public services and infrastructure. Policies Policy 3-6.1: Coordinate all development proposals with other affected public entities to ensure the provision of adequate public facilities and infrastructure services. Policy 3-6.2: Work with the school districts to ensure that local school facilities can support the pace of residential development and growth.	**Consistent.** As part of the development of the environmental documentation for the Project, the Project team reached out to all public entities, including the City of Rialto (Sewer and Parks), Rialto Fire Department, Rialto Police Department, West Valley Water District, Rialto Unified School District, CalTrans, San Bernardino County (Library and Flood Control), Omnitrans, AT&T, SCE, Southern California Gas Company, and Time Warner Cable to ensure adequate infrastructure, public facilities and services are provided to the site. The details can be found in the EIR for this project.

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Goal 3-7: Upgrade public infrastructure as an inducement to promote private investment. Policy Policy 3-7.1: Link redevelopment tools with the processes of community facilities district formation and other similar funds to improve roadway and utility systems in areas with the greatest need for upgrades.	**Consistent.** The Project infrastructure report identifies the infrastructure improvement needs to serve the site, including a sewer lift station and extending a potable water line. The project may use a variety of funding mechanisms to implement these improvements. These mechanisms are identified in Chapter 6, Implementation.
Water	
Goal 3-8: Promote affordable and quality water service capable of adequately meeting normal and emergency water demands to all areas in Rialto. Policies Policy 3-8.1: Require that all new development or expansion of existing facilities bear the cost of expanding the water system to handle the increased demands which they are expected to generate. Policy 3-8.10: Support water conservation through requirements for landscaping with drought-tolerant plants and efficient irrigation for all new development and City projects.	**Consistent.** The Project infrastructure report identifies the infrastructure improvement needs to serve the site, including the possibility of extending a potable water line to the Project site. As part of any new development, new projects will be required to pay for their connections to the potable water source, in accordance with applicable WVWD fees and regulations. The Specific Plan includes a drought-tolerant landscape palette and encourages efficient irrigation methods, as identified in Chapter 4, *Design Guidelines*. Furthermore, the Specific Plan includes sustainability provisions, which include water conservation, also identified in Chapter 4, Design Guidelines.
Goal 3-9: Upgrade and maintain an improved wastewater system with adequate plant efficiency and capacity to protect the health and safety of all Rialto residents, businesses, and institutions. Policy Policy 3-9.1: Require that all new development or expansion of existing facilities bear the cost of expanding the wastewater disposal system to handle the increased loads which they are expected to generate.	**Consistent.** The Project infrastructure report identifies the infrastructure improvement needs to serve site, including a sewer lift station. As part of any new development, new projects will be required to pay for their connections to the wastewater service system in accordance with applicable City of Rialto fees and regulations. The report identifies that there is sufficient capacity in the existing sewer system to accommodate the proposed Project.
Circulation Element	
Expanding Rialto's **Mobility**	
Goal 4-1: Provide transportation improvements to reduce traffic congestion associated with regional and local trip increases. Policies Policy 4-1.20: Design City streets so that signalized intersections operate at Level of Service (LOS) D or better during the morning and evening peak hours, and require new development to mitigate traffic impacts that degrade LOS below that level. The one exception will be Riverside Avenue south of the Metrolink tracks all the way to the City's southern border, which can operate at LOS E. Policy 4-1.21: Design City streets so that unsignalized intersections operate with no vehicular movement having an average delay greater than 120 seconds during the morning and evening peak hours, and require new development to mitigate traffic impacts that increase delay above that level.	**Consistent.** As indicated in the traffic study for the Project, roads and intersections within the Project will be designed such that they meet or exceed the level of service requirement of D during morning and evening peak hours, and unsignalized intersections shall be designed to operate with no vehicular movement having an average delay greater than 120 seconds during morning and peak hours (see section 4.H, *Transportation*, in this EIR).
Goal 4-3: Protect residences, sensitive land uses, and pedestrians from activities along rail corridors. Policy Policy 4-3.1: Require that development projects within rail corridors provide protective fencing, landscaping, and/or walls between rail tracks and new residences or other new development sensitive to noise or danger from rail operations.	**Consistent.** The Project includes the option for up to 275 multi-family dwelling units within PA3, which is partly adjacent to the Union Pacific Railroad spur. As indicated in Chapter 5, *Development Standards*, should multi-family housing be considered in PA 3, the multi-family property abutting the railroad spur shall provide protective fencing, landscape and/or walls between any multi-family development and the railroad spur.

Policies	Evaluation of Consistency
Meeting Our Parking Needs	
Goal 4-5: Ensure the provision of adequate, convenient, and safe parking for all land uses. Policies Policy 4-5.1: Support provision of park-and-ride facilities near the I-10 and SR-210 freeways to encourage carpooling, van pooling, and other ride sharing opportunities. Policy 4-5.4: Allow for joint use and the sharing of parking facilities in mixed-use developments and for other projects which demonstrate the benefits of alternative parking approaches.	**Consistent.** Park-and-ride facilities are allowed as a permitted use within the Project. As indicated in Chapter 5, Development Standards, shared parking may be allowed, provided a shared parking study is performed by a qualified traffic engineer and demonstrates no significant negative impacts associated with shared off-street parking.
Encouraging Rail and Bus Ridership	
Goal 4-6: Provide for all residents and businesses to have equal access to reliable and convenient public transit services. Policies Policy 4-6.2: Establish new bus turnouts along appropriate arterials based on and in coordination with local and regional transit providers' master plan of stops. Policy 4-6.3: Require major developments to include bus turnouts, bus shelters, and other transit facilities as appropriate. Policy 4-6.5: Encourage clean, lighted, and convenient bus shelters and transit stops that are within walking distance of major activity areas and residential neighborhoods and along arterial roadways.	**Consistent.** Pepper Avenue north of Baseline Road does not currently have any public transit services. With the recent opening of the Pepper Avenue extension, bus services could be extended to the Project site. Chapter 5, Development Standards requires that all major developments shall work with Omnitrans in determining if bus services shall service the Project site. Should bus services be provided, there is adequate space within the Pepper Avenue right-of-way to accommodate a bus turnout between the Project's two signalized intersections. Furthermore, the project will provide bus shelters and other illuminated transit facilitates, should it be determined that transit services be provided to the site.
Accommodating Bicyclists and Pedestrians	
Goal 4-8: Establish and maintain a comprehensive system of pedestrian trails and bicycle routes that provide viable connections throughout the City. Policies Policy 4-8.1: Expand Class I bicycle trails with amenities, particularly adjacent to open space areas, utility and flood control corridors, and abandoned rail corridors. Policy 4-8.4: Require provision of secure bicycle storage, including bicycle racks and lockers, at the Metrolink station, public parks, schools, shopping centers, park-and-ride facilities, and other major activity centers. Policy 4-8.5: Require major developments to include bicycle storage facilities, including bicycle racks and lockers.	**Consistent.** The Project includes a potential pedestrian bridge that connects the Community Commercial area to Frisbie Park to the west. Internally, the Project contains numerous design guidelines in Chapter 4, Design Guidelines, which encourage pedestrian connectivity between Planning Areas, including the welcoming plaza located at the terminus of the pedestrian bridge within the Community Commercial zone. Due to the location, size and scope of the project, regional Class I bike paths and trails will not be extended to reach the Project. As indicated in Chapter 18.58 of the City of Rialto Zoning Code, all projects will provide secure bicycle storage as required per the Planning Division. This storage will be incorporated throughout the site and distributed through both the Community Commercial and Residential Overlay designations. The location of the bike racks should be concentrated in areas of high expected pedestrian activity, such as plazas, bus stops, and other major activity centers.
Goal 4-9: Promote walking. Policies Policy 4-9.2: Require sidewalks and parkways on all streets in new development. Policy 4-9.3: Provide pedestrian-friendly and safety improvements, such as crosswalks and pedestrian signals, in all pedestrian activity areas. Policy 4-9.4: Accommodate pedestrians and bicyclists — in addition to automobiles — when considering new development projects. Policy 4-9.6: Encourage new development to provide pedestrian paths through projects, with outlets to adjacent	**Consistent.** The Specific Plan will promote walking as a means of transportation in accordance with the intent described in the General Plan. As indicated in Chapter 3, Plan Elements, the design of Pepper Avenue includes sidewalks and parkways. Internal drives will also provide sidewalks and parkways at select locations to foster a pedestrian-friendly environment. As discussed throughout the Specific Plan, the pedestrian circulation network will include amenities and safety improvements, such as crosswalks, pedestrian signals and pinched curbs to reduce crossing distances. Furthermore, the layout of the Project will consider pedestrian, cyclist, and automobile traffic at the design-level. The pedestrian circulation network will make meaningful connections within and outside of the project site. Areas of activity

Policies	Evaluation of Consistency
collector, secondary, and arterial roadways. Policy 4-9.7: Require ADA compliance on all new or modified handicap ramps.	and interest within the Project will be connected and walkable to one another. These places will also be connected to Frisbie Park, located to the west of the Project site. Whenever possible, all new pedestrian infrastructure in the site shall be designed such that it is ADA compliant.
Facilitating Goods Movement	
Goal 4-10: Provide a circulation system that supports Rialto's position as a logistics hub. Policy Policy 4-10.4: Encourage the development of adequate on-site loading areas to minimize interference of truck loading activities with efficient traffic circulation on adjacent roadways.	**Consistent.** As indicated in Chapter 4, Design Guidelines, loading areas shall be designed so that they minimize impacts to traffic circulation.
Safety and Noise Element	
Seismic Hazards	
Goal 5-1: Minimize hazards to public health, safety, and welfare associated with geotechnical hazards. Policies Policy 5-1.1: Require geotechnical investigations by certified engineering geologist or other qualified professionals for all grading and construction projects subject to geologic hazards, including fault rupture, severe ground shaking, liquefaction, landslides, and collapsible or expansive soils. Particular attention should be paid to areas within Alquist-Priolo Earthquake Fault Zones. Policy 5-1.2: Require all construction to be in conformance with the Uniform Building Code (UBC) and the California Building Code (CBC), and to be consistent with the Municipal Code as it provides for earthquake resistant design, excavation, and grading.	**Consistent**. As described in the environmental documentation for the Project, future developments will need to provide a geotechnical study and comply with all applicable restrictions and requirements as it applies to Alquist-Priolo Special Studies Zones. All construction will conform to all applicable state and municipal regulations regarding building and grading design (See PFD GEO-1 in this EIR).
Flood Hazards	
Goal 5-2: Minimize the risk and damage from flood hazards. Policies Policy 5-2.2: Require the implementation of adequate erosion control measures for development projects to minimize sedimentation damage to drainage facilities. Policy 5-2.4: Require water retention devices in new developments to minimize flooding of the surface drainage system by peak flows.	**Consistent.** The Specific Plan incorporates Best Management Practices and erosion control measures to minimize sedimentation damage to drainage facilities. Planning and design for water quality protection employs three basic strategies in the following order of relative effectiveness: 1) reduce or eliminate post-project runoff; 2) control sources of pollutants; and 3) treat contaminated stormwater runoff before discharging it to natural water bodies. These principles are consistent with the typical permit and local program requirements for projects that require a consideration of a combination of source control BMPs (that reduce or eliminate runoff and control pollutant sources) and treatment control BMPs with specific quantitative standards.
Fire Hazards	
Goal 5-3: Increase the City's fire protection capabilities, and implement fire prevention regulations and standards that minimize potential fire hazards and fire losses. Policies Policy 5-3.3: Require that development be phased in relation to the City's ability to provide an adequate level of fire protection, as per the City standards. Policy 5-3.4: Require that all site plans, subdivision plans, and building plans be reviewed by the Fire Department to ensure compliance with appropriate fire regulations.	**Consistent**. Development of the Specific Plan shall be phased such that growth does not outpace the City of Rialto's ability to provide adequate levels of fire protection. All site plans, subdivision plans, and building plans for the Pepper Avenue Specific Plan will be reviewed by the City's Fire Department to ensure compliance with appropriate fire regulations.

Policies	Evaluation of Consistency
Noise	
Goal 5-11: Minimize the impacts of transportation-related noise. Policy Policy 5-11.2: Require development which is, or will be, affected by railroad noise to include appropriate measures to minimize adverse noise effects on residents and business persons.	**Consistent.** As indicated in the environmental documentation for the Pepper Avenue Specific Plan, the Project incorporates mitigation measures to ensure that any noise emanating from nearby trains and/or the Project are reduced to minimize noise impacts (see Section 4.K, Noise, of this EIR).
Housing Element	
Housing Availability **and Production**	
Goal 6-2: Promote and encourage housing development that adequately meets the needs of all socioeconomic segments of the community and region. Policy Policy 6-2.6: Promote the phased and orderly development of new neighborhoods consistent with the provision of infrastructure improvements.	**Consistent.** As described in Chapter 6, Implementation, of the Specific Plan, adequate infrastructure will be provided to the Project Site prior to any occupancy approvals for growth to occur in an orderly manner.
Housing Affordability	
Goal 6-3: Maximize the use of available financial resources and pursue creative and resourceful methods to reduce the overall cost of housing. Policies Policy 6-3.4: Support the development of rental units with three or more bedrooms to provide affordable housing that adequately accommodates larger families, thereby reducing overcrowding and overpayment. Policy 6-3.5: Encourage the construction of apartment complexes with strong on-site management to ensure that housing is well maintained.	**Consistent.** The Project's proposed Residential Overlay is expected to develop with multi-family dwelling units, a portion of which may contain rental units consisting of three or more bedrooms. The exact number three bedroom of units will be determined by the developer of the future project. The Specific Plan includes development standards that encourage the construction of apartment complexes with strong on-site management to ensure that housing and its associated landscaping and amenities are well-maintained.

SOURCE: City of Rialto, Pepper Avenue Specific Plan, Appendix A, General Plan Consistency, 2016.

(d) Rialto Zoning Ordinance

Title 18 of the City of Rialto Municipal Code establishes land use requirements for all new development in the City. All new development would be reviewed by the City's Department of Building and Safety to ensure compliance with all aspects of the Municipal Code, including Title 18. The Pepper Avenue Specific Plan would meet the requirements of Sec. 18.78, which provides procedures for the adoption of specific plans. The Specific Plan's Design Guidelines (Chapter 4.0) and Development Standards (Chapter 5.0) would meet the requirements of Title 18 for the systematic implementation of the General Plan regarding the location of uses together with regulations establishing height, bulk, and setback limits; the location and extent of existing or proposed streets, standards for building density, permissible types of construction and provisions for services.

Overall, future development associated with the Project would be subject to review through the development application process and would be analyzed by the City to ensure that the development is consistent with the development regulations and requirements. Where the Specific Plan is silent on a development standard or design requirement, the City's Municipal Code

applies. Although a zone change from the existing Single-Family Residential (R-1A) would be required as part of the implementation of the Specific Plan, compliance with the development standards of the Specific Plan, once it has been adopted, would ensure that development would not conflict with the standards and regulations of the City's Zoning Ordinance. Therefore, with approval of the proposed zone change, the Specific Plan would be considered consistent with the regulations of the City's Zoning Ordinance and respective land use impacts would be less than significant.

e. Cumulative Impacts

Development of the Specific Plan is not anticipated to result in cumulative significant land use impacts relative to compliance with the applicable principles, goals, objectives, and/or policies of California Government Code Section 65450, the SCAG RTP/SCS or the City of Rialto General Plan and Zoning Ordinance. Future related projects, identified in Chapter 3, Basis for Cumulative Analysis, would be required to meet applicable regulations, such as plan review for conformance with land use and zoning designations. Any future development occurring as part of the Specific Plan in addition to identified cumulative development must undergo a project review process to preclude potential planning policy conflicts. Each development project would be analyzed independent of other land uses, as well as within the context of existing and planned developments to ensure that the goals, objectives and policies of the General Plan and all other applicable policies and development guidelines are consistently upheld. Thus, the Specific Plan along with identified related projects would not result in cumulatively considerable land use impacts, and the Project's contribution to such impacts would not be considerable.

4. Mitigation Measures

The Specific Plan would not result in less than significant impacts regarding consistency with applicable land use policies and regulations and, therefore, no mitigation measures are required.

5. Level of Significance after Mitigation

Not applicable. The Specific Plan would be consistent with the existing regulatory framework relative to land use, including California Government Code Section 65450, SCAG's RTP/SCS, and the City of Rialto General Plan and Zoning Ordinance. Impacts would be less than significant without the implementation of mitigation measures.

6. References

Chang, 2016. Comments prepared by Ping Chang, SCAG Program Manager II, on the Notice of Preparation for the Pepper Avenue Specific Plan Draft EIR, February 19, 2016. Contained in Appendix A of this EIR.

Rialto, 2010. *Rialto General Plan*. Adopted December 2010, pages 1-2 through 1-4. Available at: http://www.rialtoca.gov/documents/downloads/General_Plan_Update _2010.pdf.

_____. Op Cit, pages 3-1 through 3-3.

_____. Op Cit, pages 4-1 through 4-4.

_____. Op Cit, page 5-1.

_____. Op Cit, page 6-83.

SCAG, 2012. *2012-2035Regional Transportation Plan/Sustainable Communities Strategy*, April 2012. Available at: http://rtpscs.scag.ca.gov/Pages/default.aspx

G. Noise

1. Introduction

This section analyzes potential noise and vibration impacts that could result from the Project. The analysis describes the existing noise environment within the Project area, estimates future noise and vibration levels at surrounding land uses associated with construction and operation of the Project, identifies the potential for significant impacts, and provides mitigation measures to address significant impacts, as feasible. An evaluation of the potential cumulative noise impacts of the Project and cumulative projects is also provided. Noise worksheets and technical data used in this analysis are included in Appendix F of this Draft EIR.

2. Environmental Setting

a. Noise and Vibration Basics

(1) Noise

Noise is most often defined as unwanted sound. Although sound level can be easily measured, the perceptibility of sound is subjective and the physical response to sound complicates the analysis of its impact on people. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured on a logarithmic scale in decibels (dB). The human hearing system is not equally sensitive to sound at all frequencies. To approximate this human, frequency-dependent response, the A-weighted filter system is used to adjust measured sound levels. The A-weighted sound level is expressed in "dBA." This scale de-emphasizes low frequencies to which human hearing is less sensitive and focuses on mid- to high-range frequencies. The range of human hearing is approximately 3 to 140 dBA, with 110 dBA considered intolerable or painful to the human ear. A comparison of types of commonly experienced environmental noise is provided in **Figure 4.G-1**, *Common Noise Levels*.

Although the A-weighted scale accounts for the range of people's response and, therefore, is commonly used to quantify individual event or general community sound levels, the degree of annoyance or other response effects also depends on several other perceptibility factors. These factors include:

- Ambient (background) sound level;
- Magnitude of sound event with respect to the background noise level;
- Duration of the sound event;
- Number of event occurrences and their repetitiveness; and
- Time of day that the event occurs.

People judge the relative magnitude of sound sensation by subjective terms such as "loudness" or "noisiness." That is, in a non-controlled environment a change in sound level of 3 dB is considered "just perceptible," a change in sound level of 5 dB is considered "clearly noticeable, and a change in 10 dB is recognized as "twice as loud."

Noise Level (dBA)	Common Indoor Noise Levels	Common Outdoor Noise Levels
110	Rock Band	
100	Inside Subway Train	Jet Flyover @ 1,000 feet Gas Lawn Mower @ 3 feet
90	Food Blender @ 3 feet	Diesel Truck @ 50 feet Noisy Urban Daytime
80	Garbage Disposal @ 3 feet Shouting @ 3 feet	
70	Vacuum Cleaner @ 10 feet	Gas Lawn Mower @ 100 feet Commercial Area
60	Normal Speech @ 3 feet Large Business Office	Heavy Traffic @ 300 feet
50	Dishwasher next room	Quiet Urban Daytime
40	Small Theater/Conference Room (background)	Quiet Urban Nightime Quiet Suburban Nightime
30	Library Bedroom at Night	
20	Concert Hall (background) Broadcast & Recording Studio	Quiet Rural Nightime
10		
0	Threshold of Hearing	

SOURCE: Caltrans Noise Manual, California Department of Transportation, 1980

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Figure 4.G-1
Common Noise Levels

ESA PCR

In an outdoor environment, sound levels attenuate (reduce) through the air as a function of distance. Such attenuation is called "distance loss" or "geometric spreading" and is based on the source configuration, point source or line source. For a point source, the rate of sound attenuation is 6 dB per doubling of distance from the noise source. For example, a sound level of 50 dBA at a distance of 25 feet from the noise source would attenuate to 44 dBA at a distance of 50 feet. For a line source, such as a constant flow of traffic on a roadway, the rate of sound attenuation is 3 dB per doubling of distance. In addition, structures (e.g., buildings and solid walls) and natural topography (e.g., hills) that obstruct the line-of-sight between a noise source and a receptor further reduce the noise level if the receptor is located within the "shadow" of the obstruction, such as behind a sound wall. This type of sound attenuation is known as "barrier insertion loss." If a receptor is located behind the wall but still has a view of the source (i.e., line-of-sight not fully blocked), some barrier insertion loss would still occur, however to a lesser extent. Additionally, a receptor located on the same side of the wall as a noise source may actually experience an increase in the perceived noise level as the wall reflects noise back to the receptor, thereby compounding the noise. Noise barriers can provide noise level reductions ranging from approximately 5 dBA (where the barrier just breaks the line-of-sight between the source and receiver) to an upper range of 20 dBA with a more substantial barrier.

Community noise levels usually change continuously during the day. The equivalent sound level (L_{eq}) is normally used to describe community noise. The L_{eq} is the equivalent steady-state A-weighted sound level that would contain the same acoustical energy as the time-varying A-weighted sound level during the same time interval. For intermittent noise sources, the maximum noise level (L_{max}) is normally used to represent the maximum noise level measured during the measurement. Maximum and minimum noise levels, as compared to the L_{eq}, are a function of the characteristics of the noise source. As an example, sources such as generators have maximum and minimum noise levels that are similar to L_{eq} since noise levels for steady-state noise sources do not substantially fluctuate. However, as another example, vehicular noise levels along local roadways result in substantially different minimum and maximum noise levels when compared to the L_{eq} since noise levels fluctuate during pass-by events. The City of Rialto Noise Ordinance uses the L_{eq} for evaluation of noise violation.

To assess noise levels over a given 24-hour time period, the Community Noise Equivalent Level (CNEL) descriptor is used in land use planning. CNEL is the time average of all A-weighted sound levels for a 24-hour period with a 10 dBA adjustment (upward) added to the sound levels that occur at night (10:00 P.M. to 7:00 A.M.) and a 5 dBA adjustment (upward) added to the sound levels that occur in the evening (7:00 P.M. to 10:00 P.M.). These "penalties" attempt to account for increased human sensitivity to noise during the quieter nighttime periods, particularly where sleep is the most probable activity. CNEL has been adopted by the State of California to define the community noise environment for development of a community noise element of a General Plan and is also used by City of Rialto for land use planning in the City's Noise Element of the General Plan.

Sound Transmission Class (STC) is an integer rating of how well a building partition attenuates airborne sound. In the USA, it is widely used to rate interior partitions, ceilings/floors, doors,

windows and exterior wall configurations. The STC rating figure very roughly reflects the decibel reduction in noise that a partition can provide.

(2) Ground-Borne Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. The response of humans, buildings, and equipment to vibration is more accurately described using velocity or acceleration. Vibration amplitudes are often described as peak, as in peak particle velocity (PPV). The peak level represents the maximum instantaneous peak of the vibration signal. In addition, vibrations can be measured in the vertical, horizontal longitudinal, or horizontal transverse directions. Ground vibrations are most often greatest in the vertical direction. Therefore, the analysis of ground-borne vibration associated with the Project is addressed in the vertical direction. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Man-made vibration issues are therefore usually confined to short distances (i.e., 50 feet or less) from the source.

TABLE 4.G-1
GUIDELINE VIBRATION ANNOYANCE POTENTIAL THRESHOLD CRITERIA

	Maximum PPV (inch per second)	
Human Response	**Transient Sources a**	**Continuous/Frequent Intermittent Sources b**
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.90	0.10
Severe	2.00	0.40

[a] Transient sources created a single isolated vibration event, such as blasting or drop balls.
[b] Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-an-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Source: Caltrans, Transportation- and Construction-Induced Vibration Guidance Manual, Table 20, 2004.

b. Existing Conditions

(1) Noise-Sensitive Receptors Locations

Some land uses are considered more sensitive to intrusive noise than others due to the types of activities and characteristics associated with particular land uses. Specifically, residences, schools, libraries, religious institutions, hospitals and nursing homes are generally more sensitive to noise than are commercial and industrial land uses. Existing noise sensitive land uses are limited to residential uses, which include the following:

- Frisbie Park, 50 feet west of the Project boundary or over 700 feet from nearest potential area of construction within the Project Site;
- Semi-rural residence, 200 feet east of the Project boundary, and

- Single-family residences, 200 feet southwest of the Project boundary or approximately 800 feet from nearest potential area of construction within the Project Site.

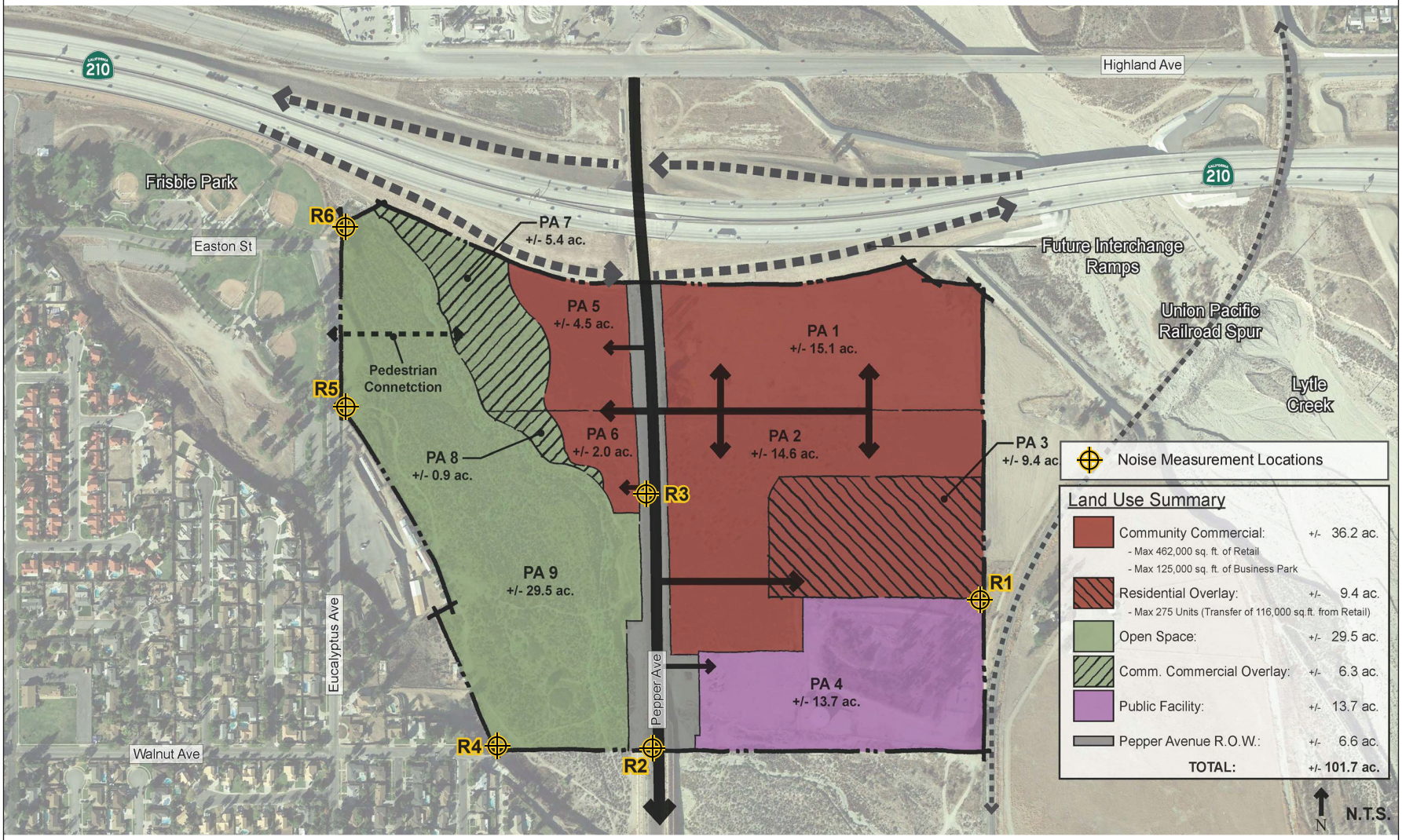
(2) Ambient Noise Levels

The predominant existing noise source surrounding the Project Site is traffic noise from the 210 Freeway and from Pepper Avenue.

Ambient noise measurements were conducted at six locations, representing the nearby land uses in the vicinity of the Project Site to establish conservative ambient noise levels. The measurement locations along with existing development and nearby future development are shown on **Figure 4.G-2**, *Noise Measurement Locations*. Long-term (24-hour) measurements were conducted at locations R1 and R2 and short-term (15-minute) noise measurements were conducted at locations R3 through R6. Ambient sound measurements were conducted from Wednesday, May 18, through Thursday, May 19, 2016, to characterize the existing noise environment in the Project vicinity.

The ambient noise measurements were conducted using the Larson-Davis 820 Precision Integrated Sound Level Meter ("SLM"). The Larson-Davis 820 SLM is a Type 1 standard instrument as defined in the American National Standard Institute S1.4. All instruments were calibrated and operated according to the applicable manufacturer specification. The SLM microphone was placed at a height of 5 feet above the local grade, at the following measurement locations, as shown in Figure 4.G-2:

- R1: represents the existing noise environment of the location of the potential future multi-family residences on the Project Site which could be located approximately 120 feet from the existing BNSF railroad tracks. The SLM was placed on the eastern boundary of the Project Site, nearest to the BNSF railroad tracks.
- R2: represents the existing noise environment of the Project Site along Pepper Avenue, and the southern boundary of the future open space land use at the Project Site. The SLM was placed on the southern boundary of the Project Site on the west side of Pepper Avenue.
- R3: represents the existing noise environment of the Project Site along Pepper Avenue, and the central portion of the Project Site which will be dedicated to community commercial uses. The SLM was placed along the west side of Pepper Avenue in the central portion of the Project Site.
- R4: represents the existing noise environment of single-family residential uses to the south and west of the Project Site. The SLM was placed at southwestern corner of the Project Site near the intersection of East Walnut Avenue and North Chestnut Avenue.
- R5: This measurement location represents the existing noise environment of the southern boundary of Frisbie Park. The SLM was placed at the western boundary of the Project Site across Eucalyptus Avenue from Frisbie Park.
- R6: This measurement location represents the existing noise environment of the northeastern boundary of Frisbie Park near State Route 210 (SR-210). The SLM was placed at the northwestern boundary of the Project Site to the northeast of the intersection of Easton Street and Eucalyptus Avenue.



SOURCE: KTGY Architecture+Planning, July 2015; ESA PCR, 2016

Pepper Avenue Specific Plan

Figure 4.G-2

Noise Measurement Locations

ESA PCR

A summary of noise measurement data is provided in **Table 4.G-2,** *Summary of Ambient Noise Measurements*. Daytime noise levels ranged from 48 dBA to 73 dBA, L_{eq} and nighttime noise levels ranged from 41 dBA to 73 dBA, L_{eq}.

TABLE 4.G-2
SUMMARY OF AMBIENT NOISE MEASUREMENTS

	Measured Ambient Noise Levels,[a] (dBA)			
Location, Duration, Existing Land Uses and, Date of Measurements	**Daytime (7 A.M. to 10 P.M.) Hourly L_{eq}**	**Daytime Average Hourly L_{eq}**	**Nighttime (10 P.M. to 7 A.M.) Hourly L_{eq}**	**Nighttime Average Hourly Leq**
R1 –				
5/18/16 (5:00 P.M. to 11:59 P.M.)/Wednesday	48 – 72	68	48 – 71	67
5/19/16 (12:00 A.M. to 7:59 P.M.)/Thursday	45 – 73		41 – 73	
R2				
5/18/16 (8:00 P.M. to 11:59 P.M.)/Wednesday	61 – 62	64	58 - 61	61
5/19/16 (12:00 A.M. to 7:59 P.M.)/Thursday	53 – 66		52 – 64	
R3				
5/18/16 (6:51 P.M. to 7:06 P.M.)/Wednesday	61	N/A	N/A	N/A
R4				
5/18/16 (6:19 P.M. to 6:34 P.M.)/Wednesday	57	N/A	N/A	N/A
R5				
5/18/16 (5:44 P.M. to 5:59 P.M.)/Wednesday	58	N/A	N/A	N/A
R6				
5/18/16 (5:08 P.M. to 5:23 P.M.)/Wednesday	59	N/A	N/A	N/A

[a] Detailed measured noise data, including hourly Leq levels, are included in Appendix F.

SOURCE: ESA PCR, 2016.

To further characterize the Project area's ambient noise environment, the CNEL noise levels attributed to existing traffic on local roadways were calculated using a noise prediction model which was developed based on calculation methodologies provided in the California Department of Transportation (Caltrans) Technical Noise Supplement (TeNS) document and traffic data provided in the Project Traffic Study (see Appendix G of this Draft EIR). This methodology, considered an industry standard, allows for the definition of roadway configurations, barrier information (if any), and receiver locations.

A traffic model calibration test was performed to establish the noise prediction model's accuracy between 6 P.M. and 8 P.M. on May 18, 2016. The road segments included in the calibration test were along Pepper Avenue, between Winchester Drive and Highland Avenue and Eucalyptus Avenue, south of Easton Street. At the noted locations, a 15-minute noise recording was made concurrent with logging of actual traffic volumes and auto fleet mix (i.e., standard automobile, medium duty truck, or heavy duty truck). The traffic counts were entered into the noise model along with the observed speed, lane configuration, and distance to the roadway to calculate the traffic noise levels. The results of the traffic noise model calibration are provided in **Table 4.G-3**, *Traffic Noise Model Calibration Results.* As indicated, the noise model results are within 1 dBA

of the measured noise levels, which is within the industry standard tolerance of the noise prediction model. Therefore, the Project specific traffic noise prediction model is considered accurate and reflective of the Project's physical setting.

TABLE 4.G-3
TRAFFIC NOISE MODEL CALIBRATION RESULTS

Road Segment/ Noise Measurements Locations	Traffic Counts during noise readings, 15-minutes			Measured Traffic Noise Levels, L_{eq} (dBA)[c]	Project Traffic Noise Model Predicted Noise Levels, L_{eq} (dBA)	Difference between Predicted and Measured Levels, dBA
	Autos	Medium Trucks [a]	Heavy Trucks [b]			
Pepper Avenue	103	0	0	61.3	61.8	-0.5
Eucalyptus Avenue	62	0	0	58.9	59.5	-0.6

[a] Medium Truck – 2 axle trucks based on field observations.
[b] Heavy Truck – 3 or more axle trucks and buses based on field observations.

Source: ESA PCR, 2016.

Because the monitoring data validates the use of a project-specific traffic noise prediction model, the ambient noise environment of the Project vicinity can be characterized by 24-hour CNEL levels attributable to existing traffic on local roadways. As indicated in **Table 4.G-4**, *Predicted Existing Vehicular Traffic Noise Levels*, the calculated CNEL (at a distance of 25 feet from the roadway right-of-way) from actual existing traffic volumes on the analyzed roadway segments ranged from 42.6 dBA to 68.2 dBA for residential areas and commercial areas.

(3) Vibration-Sensitive Receptor Locations

Typically, ground-borne vibration generated by man-made activities (i.e., rail and roadway traffic, mechanical equipment and typical construction equipment) diminishes rapidly as the distance from the source of the vibration become greater. The Federal Transportation Association (FTA) uses a screening distance of 100 feet for high vibration sensitive buildings (e.g., hospital with vibration sensitive equipment) and 50 feet for residential uses (FTA year). When vibration sensitive uses are located within those distances from a project site, vibration impact analysis is required. With respect to structures, vibration-sensitive receptors generally include historic buildings with construction susceptible to damage, buildings in poor structural condition, and uses that require precision instruments (e.g., hospital operating rooms or scientific research laboratories). There are no vibration sensitive buildings within 100 feet and no residences within 50 feet of the Project Site.

TABLE 4.G-4
PREDICTED EXISTING VEHICULAR TRAFFIC NOISE LEVELS

Roadway Segment	Adjacent Land Use	Existing Noise Exposure Compatibility Category [b,c]	Existing CNEL (dBA) at Referenced Distances from Roadway Right-of-Way [a] 25 Feet
Pepper Avenue			
Between Rialto Avenue and Foothill Avenue	Residential/ Commercial	Normally Incompatible	67.8
Between Foothill Avenue and Etiwanda Avenue	Residential	Normally Incompatible	66.3
Between Etiwanda Avenue and Baseline Road	Residential	Normally Compatible	66.3
Between Baseline Road and Mariposa Drive	Residential	Normally Compatible	61.5
Between Mariposa Drive and Winchester Drive	Residential	Normally Compatible	60.2
Between Winchester Drive and Highland Avenue	Residential	Clearly Compatible	42.6
Highland Avenue			
Between Commercial Driveway and Pepper Avenue	Commercial	Normally Compatible	64.3
Between Pepper Avenue and Macy Street	Commercial/ Residential	Normally Compatible	64.3
Between Macy Street and State Street	Commercial	Normally Compatible	66.0
Between Commercial Driveway and Easton Street	Commercial	Normally Compatible	64.1
State Street			
North of Highland Avenue	Commercial/ Residential	Normally Incompatible	65.4
South of SR-210 EB Ramps	Residential	Normally Compatible	64.9
Eucalyptus Avenue			
Between Walnut Avenue and Winchester Drive	Residential	Normally Compatible	60.4
Between Winchester Drive and Baseline Road	Residential	Normally Compatible	63.1
Winchester Drive			
Between Eucalyptus Avenue and Pepper Avenue	Residential	Normally Compatible	59.2
Baseline Road			
Between Eucalyptus Avenue and Pepper Avenue	Residential	Normally Incompatible	68.2
Between Pepper Avenue and Meridian Avenue	Residential	Normally Incompatible	67.5
Riverside Avenue			
North of SR-210 WB Ramps	Commercial/ Residential	Normally Incompatible	69.5
Between SR-210 EB Ramps and Easton Street	Commercial	Normally Incompatible	72.1

Roadway Segment	Adjacent Land Use	Existing Noise Exposure Compatibility Category [b,c]	Existing CNEL (dBA) at Referenced Distances from Roadway Right-of-Way [a] 25 Feet
Easton Street			
Between Riverside Avenue and Highland Avenue	Commercial/ Residential	Normally Compatible	64.9
West of Riverside Avenue	Commercial/ Residential	Normally Compatible	64.5
Mariposa Drive			
West of Pepper Avenue	Residential	Normally Compatible	55.3
East of Pepper Avenue	Residential	Clearly Compatible	53.6
Etiwanda Avenue			
West of Pepper Avenue	Residential	Normally Compatible	60.5
East of Pepper Avenue	Residential	Normally Compatible	60.7
Rialto Avenue			
West of Pepper Avenue	Residential/School	Normally Incompatible	65.9
East of Pepper Avenue	Residential	Normally Incompatible	67.0

a Calculated based on existing traffic volumes.
b Based on noise levels at 25 feet distance from the roadway and residential uses if residential uses are shown along roadways.
c See Table 4.G-5 for a description of the compatibility categories.

Source: ESA PCR, 2016.

c. Regulatory Framework

(1) City of Rialto General Plan

The City of Rialto has established guidelines for land use compatibility, which is similar but modified version of the State's land use noise compatibility standards. The City's guidelines are provided in the City's Noise Element of the General Plan and are presented in **Table 4.G-5**.

TABLE 4.G-5
CITY OF RIALTO LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS

	Community Noise Exposure CNEL, dBA			
Land Use	**Clearly Compatible**	**Normally Compatible**	**Normally Incompatible**	**Clearly Incompatible**
Residential - Single-Family, Duplex, Multiple Family, Mobile Homes	Up to 55	55 to 65	65 to 70	Above 70
Commercial - Hotels, Motels, Transient Lodging	Up to 55	55 to 65	65 to 80	Above 80
Institutional – Hospitals, Schools, Churches, Libraries	Up to 55	55 to 65	65 to 75	Above 75
Institutional - Auditoriums, Meeting Halls	Up to 55	55 to 60	60 to 70	Above 70
Open Space - Parks, Playgrounds	Up to 65	65 to 70	70 to 75	Above 75
Commercial – Office Buildings	Up to 60	60 to 75	75 to 80	Above 80
Commercial - Commercial Retail, Banks, Theaters, Restaurants	Up to 60	60 to 80	Above 80	--
Commercial/Industrial - Wholesale Warehousing, Manufacturing, Auto Dealership	Up to 65	65 to 80	Above 80	--
Agricultural - Farming/Groves	Up to 85	--	--	--

Clearly Compatible: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.
Normally Compatible: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
Normally Incompatible: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
Clearly Incompatible: New construction or development should generally not be undertaken.

Source: Noise Element of the General Plan for the City of Rialto, November 1, 1991.

(2) City of Rialto Municipal Codes

The City of Rialto Noise Ordinance (Rialto Municipal Code, RMC) restricts unnecessary or excessive noise. The Noise Ordinance does not define what constitutes a noise violation in terms of numeric standards. Rather, it characterizes a noise violation as any noise that is unreasonably loud, unnecessary or unusual that disturbs the comfort, repose, health, peace and quiet or which causes discomfort or annoyance to any reasonable person of normal sensitivity [Section 9.50.030]. Among others, specific examples of violations cited in the Noise Ordinance that would pertain to the Project include the following:

- Loading and unloading any vehicle, or operating or permitting the use of dollies, carts, forklifts, or other wheeled equipment that causes any impulsive sound, raucous or unnecessary noise within one thousand feet of a residence, between the hours of 8:00 P.M. and 8:00 A.M. in residential zones or 8:00 P.M. and 7:00 A.M. in all other zones [Section 9.50.050(B)];
- Activities conducted on the grounds of any public or private schools during regular hours of operation are exempt from the Noise Ordinance [Section 9.50.060(B)].

With regard to construction noise, the City of Rialto does not specify quantitative limits. Rather, the City sets limits on when construction activity can occur. Therefore, pursuant to the City's Noise Ordinance, the Project construction related noise impacts would not be considered significant unless construction occurs outside the City's allowed duration as follows:

1. October 1st through April 30th - 7:00 A.M. to 5:30 P.M. Monday through Friday, 8:00 A.M. to 5:00 P.M. on Saturday. Construction activities are not permitted on Sundays and State holidays.
2. May 1st through September 30th - 6:00 A.M. to 7:00 P.M. Monday through Friday, 8:00 A.M. to 5:00 P.M. on Saturday. Construction activities are not permitted on Sundays and State holidays.

(3) Ground-Borne Vibration Guidelines

The City of Rialto has not adopted policies or guidelines relative to ground-borne vibration. However, Caltrans has produced a guidance manual for evaluating potential vibration impacts ("Transportation- and Construction-Induced Vibration Guidance Manual" dated June 2004). The manual provides thresholds for potential impacts on human comfort and damage to buildings, as well as guidance for reducing potential vibration impacts and addressing vibration issues. The manual contains data from multiple sources including the FTA. Tables 4, 5 and 6 of the Caltrans guidance manual provide criteria for identifying potential annoyance from vibration activity, as measured in inches per second PPV. For example, 0.035 inches per second PPV is identified as a level that is "distinctly" or "barely" perceptible, and 0.08/0.1 inches per second PPV is identified as "readily" or "strongly" perceptible. Levels above 0.08/0.1 inches per second PPV represent levels that begin to annoy human beings.

Tables 9 through 15 of the Caltrans guidance manual provide criteria for identifying potential damage to buildings. The values vary depending on the types and conditions of buildings considered. According to those guidelines, buildings that are extremely old and fragile can be subject to damage from vibration levels as low as 0.1 inches per second PPV. Table 10, based on FTA data, provides a conservative estimate for well-constructed buildings of 0.5 inches per second (PPV). Tables 9, 14, and 15 assign the 0.5 standard to residential structures and some older buildings, and assign levels of 1.0 to 2.0 inches per second PPV for newer, more substantial, better engineered buildings.

3. Environmental Impacts

a. Methodology

(1) On-Site Construction Noise

Noise impacts from on-site construction, staging area, and truck hauling are evaluated by determining the noise levels generated by the different types of construction activity, calculating the construction-related noise level at nearby sensitive receptor locations, and comparing these construction-related noise levels to existing ambient noise levels (i.e., noise levels without construction noise). More specifically, the following steps were undertaken to calculate construction-period noise impacts:

1. Ambient noise levels at surrounding sensitive receptor locations were estimated based on field measurement data (see Table 4.G-1);
2. Typical noise levels for each type of construction equipment were obtained from the Federal Highway Administration (FHWA) roadway construction noise model (RCNM); and
3. Construction noise levels were then estimated in terms of hourly L_{eq}, at varying distances based on the standard point source noise-distance attenuation factor of 6.0 dBA for each doubling of distance.

Construction noise is a short-term temporary event, expected to occur only during daytime hours, typically from 7:00 A.M. to 7:00 P.M., and considered a common necessity for new development. There are residential uses in the City that are in proximity to the Project Site and could potentially be impacted by the Project construction noise. While the City does not have an established significance threshold for construction noise, compliance with the RMC (construction hours limits as described Section 2.b.(2)) shall be considered to result in a less than significant impact for purposes of this Project.

(2) Off-Site Roadway Noise (Construction and Operation)

Roadway noise impacts have been evaluated using the Caltrans TeNS methodology based on the roadway traffic volume data provided in the Traffic Impact Analysis (TIA) prepared for the Project. [1] This methodology allows for the definition of roadway configurations, barrier information (if any), and receiver locations. Roadway noise attributable to Project development was calculated and compared to baseline noise levels that would occur under the "without Project" condition.

According to the TIA, the Specific Plan's Development Scenario 1 (without residential overlay) would generate more traffic than Scenario 2 (with residential overlay). Therefore, Scenario 1 only is evaluated in the TIA to present a conservative or worst-case assessment of traffic impacts. Similarly, roadway noise impacts for Scenario 1 have been evaluated herein to provide a worst-case assessment of traffic noise impacts.

(3) Stationary Point-Source Noise (Operation)

Stationary point-source noise impacts have been evaluated by identifying the noise sources such as rooftop mechanical equipment and loading dock activities, estimating noise levels from noise sources at surrounding sensitive receiver property line locations, and comparing such noise levels to existing ambient noise levels. As previously discussed, with respect to the community noise assessment, changes in noise levels of less than 3 dBA are generally not discernable to most people, while changes greater than 5 dBA are readily noticeable and would be considered a significant increase.

(4) Ground-Borne Vibration (Construction and Operation)

Ground-borne vibration impacts were evaluated by identifying potential vibration sources, measuring the distance between vibration sources and surrounding structure locations, and making a significance determination based on the significance thresholds described below.

[1] Marlie Whiteman, P.E, June 2015, January 2016 (Revised). Pepper Avenue Specific Plan, Traffic Impact Analysis.

b. Thresholds of Significance

Appendix G of the CEQA Guidelines provides a set of screening questions that address impacts with regard to Noise Impacts. These questions are as follows:

Would the Project result in:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;
- A substantial permanent increase in ambient noise levels in the vicinity of the Project above levels existing without the Project; or
- A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.

(1) Construction

The following thresholds of significance are set forth in the RMC, which states that a project would normally have a significant impact on noise levels from construction if construction activities would occur outside of the following hours:

Threshold 1: October 1st through April 30th - 7:00 A.M. to 5:30 P.M. Monday through Friday, 8:00 A.M. to 5:00 P.M. on Saturday. Construction activities are not permitted on Sundays and State holidays; and May 1st through September 30th - 6:00 A.M. to 7:00 P.M. Monday through Friday, 8:00 A.M. to 5:00 P.M. on Saturday. Construction activities are not permitted on Sundays and State holidays.

Additionally, construction activities would result in a significant impact if they were to occur on a Sunday or State holiday.

(2) Operation

The City of Rialto General Plan provides land use compatibility guidelines for defining significant noise impacts due to operations. A significant impact related to operational noise would result if:

Threshold 2: The Project would cause ambient noise levels to increase by 5 dBA, CNEL or more and the resulting noise falls on a noise-sensitive land use within an area categorized as either "clearly compatible" or "normally compatible" (see Table 4.G-5 for description of these categories); or cause ambient noise levels to increase by 3 dBA, CNEL or more and the resulting noise falls on a noise-sensitive land use within an area categorized as either "normally incompatible" or "clearly incompatible."

(3) Ground-Borne Vibration

The City of Rialto has not adopted a significance threshold to assess vibration impacts during construction. Thus, the Caltrans standards described above are used to evaluate potential impacts

related to Project construction. Generally, the threshold for human annoyance (0.035 inches per second [PPV]) is used to evaluate the significance of all vibration impacts at off-site sensitive uses. The thresholds for structural damage to residential and commercial buildings are 0.5 inches per second and 1.0 inches per second (PPV), respectively, in accordance with Caltrans guidance.

The City of Rialto has not adopted a significance threshold to assess long-term vibration impacts, such as those potentially arising from operation of the Project. Vehicles passing by off-site sensitive uses are the primary source of long-term Project-related vibration. The level of human annoyance, 0.035 inch per second PPV, has been selected.

Impacts relative to ground-borne vibration would be considered significant if either of the following were to occur:

Threshold 3: Project construction activities cause a ground-borne vibration level to exceed 0.5 inches per second PPV (potential for structural damage) at the nearest off-site residential uses.

Threshold 4: Project construction or operation activities cause ground-borne vibration levels to exceed 0.035 inch per second PPV (potential human annoyance level) at the nearest off-site residential uses.

c. Project Design Features

No project design features are applicable to the Noise analysis below.

d. Project Impacts

(1) Construction Noise

(a) On-site Construction Noise

Threshold Noise 1: The Project would have a significant impact if construction activities occur outside of the following hours: October 1st through April 30th - 7:00 A.M. to 5:30 P.M. Monday through Friday, 8:00 A.M. to 5:00 P.M. on Saturday. Construction activities are not permitted on Sundays and State holidays; and May 1st through September 30th - 6:00 A.M. to 7:00 P.M. Monday through Friday, 8:00 A.M. to 5:00 P.M. on Saturday. Construction activities are not permitted on Sundays and State holidays.

Impact Statement Noise-1: Construction activities associated with Project implementation would be conducted within the allowable hours specified in the City's Municipal Code. Compliance with the requirements of the City's Municipal Code would ensure that construction noise impacts are less than significant.

The timing of development within the Project Site would be subject to local, regional, and national market conditions. Accordingly, the Project Site could be developed in one or more phases, with the earliest construction beginning in late 2016. No uses would be opened prior to 2017 (opening year). The build-out year would be 2035.

Individual pieces of construction equipment that would likely be used for Project construction produce maximum noise levels of 75 dBA to 90 dBA at a reference distance of 50 feet from the noise source, as shown in **Table 4.G-6**, *Maximum Noise Levels and Estimated Usage of Typical Construction Equipment*. These maximum noise levels would occur when equipment is operating under full power conditions or during "impact" activities, such as jack hammering or sawing. However, equipment used on construction sites often operate under less than full power conditions, or part power. To more accurately characterize construction-period noise levels, the average (Hourly L_{eq}) noise level associated with each construction stage is calculated based on the quantity, type, and usage factors for each type of equipment that would be used during each construction stage and are typically attributable to multiple pieces of equipment operating simultaneously.

TABLE 4.G-6
MAXIMUM NOISE LEVELS AND ESTIMATED USAGE OF TYPICAL CONSTRUCTION EQUIPMENT

Type of Equipment	Estimated Usage Factor	Reference Noise Level at 50 feet, L_{max}
Aerial Lift	20%	75
Air Compressor	50%	78
Cement and Mortar Mixer	40%	79
Concrete Saw	20%	90
Crane	40%	81
Dozer	40%	82
Excavator	40%	81
Forklift	10%	75
Grader	40%	85
Rubber Tired Loader	40%	82
Other Equipment	50%	85
Paver	50%	77
Pavement Scarifier	20%	90
Roller	20%	80
Scraper	40%	84
Tractor / Loader / Backhoe	25%	80
Vacuum Street Sweeper	10%	82

Source: FHWA 2005.

Construction noise levels were estimated based on an industry standard sound attenuation rate of 6 dB per doubling of distance for point sources (e.g., construction equipment). Within the analysis, all construction equipment was assumed to operate simultaneously at the construction area nearest to potentially affected residential receptors. These assumptions represent a worst-case noise scenario as construction activities would routinely be spread throughout the construction site further away from noise sensitive receptors. In addition, noise from different

construction stages, which have the potential to occur simultaneously were added together to provide a composite construction noise level.

A summary of noise level increases by receptor location and phase of construction activity is provided in **Table 4.G-7**, *Estimate of Construction Noise Levels at Off-Site Sensitive Receiver Locations*. The estimated noise levels represent a worst-case scenario and the actual sound occurring at various locations would be less than that indicated in Table 4.G-7 due to four factors: 1) the construction activities are analyzed as if they were occurring along the perimeter of the Project Site, whereas construction would typically occur throughout the site and only periodically at the perimeter of the site; 2) there are times when the construction activities are fewer than the maximums identified here; 3) there are times when the construction equipment operates at less than full power level, and 4) noise sensitive receptors that are located farther away from the Project Site would experience less construction noise, as sound diminishes away from the source, and due to intervening buildings between the source and receiver.

TABLE 4.G-7
ESTIMATE OF CONSTRUCTION NOISE LEVELS AT OFF-SITE SENSITIVE RECEIVER LOCATIONS

Noise Sensitive Receptor	Nearest Distance (feet)from Construction Activity to Noise Receptor	Estimated Construction Noise Levels at the Noise Sensitive Receptor by Construction Phase [a] Hourly L_{eq} (dBA)			
		Site Grading	Fine Grading/ Foundation	Building Construction	Paving
Frisbie Park east of the Project Site	700	65	63	65	65
Residential uses east of the Project Site	200	75	73	76	75
Residential uses southwest of the Project Site	800	63	61	64	63

[a] Estimated construction noise levels represent the worst-case scenario when noise generators are located closest to the receptors and are not expected to last the entire construction duration.

Source: *ESA PCR, 2016.*

Estimates of the greatest impacts that might occur during construction hours at nearby sensitive receptors are shown in Table 4.G-7. Construction activities would temporarily increase the existing ambient noise for receptors in proximity to construction sites. Construction activities would temporary increase the existing ambient noise in proximity of the construction site. Construction activities would be required to comply with the City's allowable construction hours as described above and would be temporary in nature. Since temporary construction noise levels are exempt from the City's noise ordinance requirements, construction-related noise would result in a less than significant noise impact.

(2) Operational Noise Impacts

(a) Offsite Project Traffic

Threshold Noise 2: The Project would have a significant impact if it would cause ambient noise levels to increase by 5 dBA, CNEL or more, and the resulting noise falls on a noise-sensitive land use within an area categorized as either "clearly compatible" or "normally compatible" (see Table 4.G-5 for description of these categories); or cause ambient noise levels to increase by 3 dBA, CNEL or more and the resulting noise falls on a noise-sensitive land use within an area categorized as either "normally incompatible" or "clearly incompatible."

Impact Statement Noise-2: The Project's noise impacts on existing development from operational on-site stationary noise sources would be less than significant. Project operational traffic would increase ambient noise levels at off-site noise-sensitive uses in the Project area; however, the increases would not exceed the established thresholds. Operational traffic-related noise impacts would be less than significant. Potential future residences could be exposed to traffic-related noise levels that would exceed thresholds. However, implementation of the prescribed mitigation measure would ensure this potentially significant noise impact is reduced to a less than significant level.

(i) Impacts Under Existing Traffic Baseline Conditions

Existing roadway noise levels were calculated along various arterial segments adjacent to the Project Site based on traffic volumes in the TIA. Roadway noise attributable to Project development was calculated using the traffic noise model previously described and was compared to existing baseline noise levels that would occur under the "No Project" condition.

Project impacts are shown in **Table 4.G-8**, *Off-Site Traffic Noise Impacts-Existing Baseline Conditions.* As indicated, based on traffic volumes in the TIA, the maximum increase in Project-related traffic noise levels over existing traffic noise levels is estimated be approximately 18.0 dBA CNEL along Pepper Avenue, between Winchester Drive and Highland Avenue, which would exceed "clearly compatible" land use increase of 5.0 dBA CNEL. However, the existing traffic volumes from the TIA are 2014 volumes. Prior to 2014, Pepper Avenue continued north of Winchester Drive for only 5 houses, where it terminated at Shirley Bright Road (i.e., not continuing past the Project Site connecting to Highland Avenue). In 2014, Pepper Avenue was extended beyond this point, past the Project Site, to Highland Avenue, passing under SR-210 with on-ramps not yet connected in 2014. Therefore, existing (2014) volumes on this segment were substantially lower than Pepper Avenue south of Winchester Drive (i.e., 10 times lower), which is reflected in the low noise level of 42 dBA CNEL and the 18 dBA CNEL increase with the Project along the Pepper Avenue segment between Winchester Drive and Highland Avenue. In 2017 (Opening Year scenario below), traffic volumes reflect connection and operation of the Pepper Avenue on-ramps to SR-210. While traffic and associated mobile-source noise along Pepper Avenue between Winchester Drive and Highland Avenue since the opening of the Pepper Avenue extension would be greater than that cited in the TIA, and less than that during the Opening Year conditions below (when the SR-210 ramps are open); the resulting traffic noise level would be less than 63.3 dBA CNEL, shown in Table 4.G-9 below. Such a noise level is within the "normally compatible" noise level for residential uses. Furthermore, because the Existing Plus Project scenario is provided for informational purposes only and does not represent a scenario

that would occur with the Project, impacts under this scenario are not identified as significant with no mitigation measures required

TABLE 4.G-8
OFF-SITE TRAFFIC NOISE IMPACTS – EXISTING BASELINE CONDITIONS

Roadway Segment	Calculated Traffic Noise Levels at 25 feet from Roadway, CNEL (dBA)			
	Existing [a] (A)	Existing with Project [b] (B)	Project Increment (B - A)	Exceed Threshold?
Pepper Avenue				
Between Rialto Avenue and Foothill Avenue	67.8	67.9	0.1	No
Between Foothill Avenue and Etiwanda Avenue	66.3	66.6	0.3	No
Between Etiwanda Avenue and Baseline Road	66.3	66.6	0.3	No
Between Baseline Road and Mariposa Drive	61.5	62.7	1.2	No
Between Mariposa Drive and Winchester Drive	60.2	61.9	1.7	No
Between Winchester Drive and Highland Avenue	42.6	60.6	18.0	**Yes**
Highland Avenue				
Between Commercial Driveway and Pepper Avenue	64.3	64.9	0.6	No
Between Pepper Avenue and Macy Street	64.3	65.1	0.8	No
Between Macy Street and State Street	66.0	66.1	0.1	No
Between Commercial Driveway and Easton Street	64.1	64.4	0.3	No
State Street				
North of Highland Avenue	65.4	65.6	0.2	No
South of SR-210 EB Ramps	64.9	65.0	0.1	No
Eucalyptus Avenue				
Between Walnut Avenue and Winchester Drive	60.4	61.3	0.9	No
Between Winchester Drive and Baseline Road	63.1	63.1	0.0	No
Winchester Drive				
Between Eucalyptus Avenue and Pepper Avenue	59.2	59.8	0.6	No
Baseline Road				
Between Eucalyptus Avenue and Pepper Avenue	68.2	68.3	0.1	No
Between Pepper Avenue and Meridian Avenue	67.5	67.7	0.2	No
Riverside Avenue				
North of SR-210 WB Ramps	69.5	69.6	0.1	No
Between SR-210 EB Ramps and Easton Street	72.1	72.1	0.0	No
Easton Street				
Between Riverside Avenue and Highland Avenue	64.9	65.0	0.1	No
West of Riverside Avenue	64.5	64.6	0.1	No

Roadway Segment	Calculated Traffic Noise Levels at 25 feet from Roadway, CNEL (dBA) Existing [a] (A)	Existing with Project [b] (B)	Project Increment (B - A)	Exceed Threshold?
Mariposa Drive				
West of Pepper Avenue	**55.3**	55.3	0.0	No
East of Pepper Avenue	53.6	53.6	0.0	No
Etiwanda Avenue				
West of Pepper Avenue	60.5	60.6	0.1	No
East of Pepper Avenue	60.7	60.9	0.2	No
Rialto Avenue				
West of Pepper Avenue	65.9	65.9	0.0	No
East of Pepper Avenue	67.0	67.0	0.1	No

[a] Existing data is taken from Table 4.G-4.

Source: ESA PCR, 2016.

(ii) Impacts Under Opening Year 2017 Traffic Baseline Conditions

Future (2017) roadway noise levels were also calculated along various arterial segments adjacent to the Project as compared to 2017 baseline traffic noise levels that would occur with implementation of the Project. Project impacts are shown in **Table 4.G-9**, *Off-Site Traffic Noise Impacts – Future 2017 Baseline Conditions.* As indicated, the maximum increase in Project-related traffic noise levels over the future 2017 traffic noise levels would be 6.3 dBA CNEL, which would occur along Pepper Avenue, between Main Driveway and SR-210 EB Ramps. However, because no sensitive uses (i.e., residential uses) are currently located near this roadway segment, no impacts would occur there due to the increase in traffic noise levels. Further, the Project's proposed residential uses, if implemented, would be approximately 500 feet from the Main Driveway at Pepper Avenue. As shown in Table 4.G-9, predicted traffic noise levels along Pepper Avenue between Main Driveway and SR-210 EB Ramps would be 67.7 dBA CNEL at 25 feet from the roadway, which would attenuate as a noise line source at a rate of -3 dBA per doubling of distance. Therefore, the 2017 traffic noise level with the Project at the proposed residential uses 500 feet away would be approximately 57.7 dBA CNEL. As such, impacts would be less than significant.

TABLE 4.G-9
OFF-SITE TRAFFIC NOISE IMPACTS – FUTURE 2017 BASELINE CONDITIONS

Roadway Segment	Calculated Traffic Noise Levels at 25 feet from Roadway, CNEL (dBA)			
	Future No Project (2017) (A)	Future with Project (Opening Year 2017)[a] (B)	Future Project Increment (B-A)	Exceed Threshold?
Pepper Avenue				
Between Rialto Avenue and Foothill Avenue	68.2	68.2	0.0	No
Between Foothill Avenue and Etiwanda Avenue	66.8	67.0	0.2	No
Between Etiwanda Avenue and Baseline Road	66.9	67.2	0.3	No
Between Baseline Road and Mariposa Drive	63.6	64.4	0.8	No
Between Mariposa Drive and Winchester Drive	63.1	64.2	1.1	No
Between Winchester Drive and Highland Avenue	60.4	63.3	2.9	No
Highland Avenue				
Between Commercial Driveway and Pepper Avenue	66.0	66.3	0.3	No
Between Pepper Avenue and Macy Street	66.3	66.8	0.5	No
Between Macy Street and State Street	67.1	67.4	0.3	No
Between Commercial Driveway and Easton Street	64.7	65.0	0.3	No
State Street				
North of Highland Avenue	66.2	66.4	0.2	No
South of SR-210 EB Ramps	66.2	66.2	0.0	No
Eucalyptus Avenue				
Between Walnut Avenue and Winchester Drive	60.8	61.6	0.8	No
Between Winchester Drive and Baseline Road	63.4	63.4	0.0	No
Winchester Drive				
Between Eucalyptus Avenue and Pepper Avenue	59.7	60.2	0.5	No
Baseline Road				
Between Eucalyptus Avenue and Pepper Avenue	68.6	68.7	0.1	No
Between Pepper Avenue and Meridian Avenue	67.9	68.2	0.3	No
Riverside Avenue				
North of SR-210 WB Ramps	70.0	70.1	0.1	No
Between SR-210 EB Ramps and Easton Street	72.4	72.5	0.1	No
Easton Street				
Between Riverside Avenue and Highland Avenue	65.2	65.3	0.1	No
West of Riverside Avenue	65.0	65.0	0.0	No

Roadway Segment	Calculated Traffic Noise Levels at 25 feet from Roadway, CNEL (dBA) Future No Project (2017) (A)	Future with Project (Opening Year 2017)[a] (B)	Future Project Increment (B-A)	Exceed Threshold?
Mariposa Drive				
West of Pepper Avenue	55.9	55.9	0.0	No
East of Pepper Avenue	54.7	54.7	0.0	No
Etiwanda Avenue				
West of Pepper Avenue	60.8	60.9	0.1	No
East of Pepper Avenue	61.0	61.2	0.2	No
Rialto Avenue				
West of Pepper Avenue	66.2	66.2	0.0	No
East of Pepper Avenue	67.3	67.4	0.1	No
Future Roadway Segment				
Pepper Avenue (Future Roadway)				
Between Main Driveway and SR-210 EB Ramps	61.4	67.7	6.3	**Yes**
North of SR-210 WB Ramps	59.4	61.7	2.3	No

[a] Include future growth plus cumulative projects and Project traffic.

Source: ESA PCR 2016.

(iii) Impacts Under Future 2035 Traffic Baseline Conditions

Future (2035) roadway noise levels were also calculated along various arterial segments adjacent to the Project as compared to 2035 baseline traffic noise levels that would occur with implementation of the Project. Project impacts are shown in **Table 4.G-10**, *Off-Site Traffic Noise Impacts – Future 2035 Baseline Conditions.* As indicated, the maximum increase in Project-related traffic noise levels over the future traffic noise levels would be 2.4 dBA, CNEL, which would occur along Pepper Avenue, between Main Driveway and SR-210 EB Ramps. This increase in sound level would be below 3.0 dBA, CNEL in an area characterized by normally incompatible noise levels (see Table 4.G-5), and the increase in sound level would be substantially lower at the remaining roadway segments analyzed. The Project-related noise increases would be less than the threshold, and therefore, less than significant, and no mitigation measures would be required.

TABLE 4.G-10
OFF-SITE TRAFFIC NOISE IMPACTS – FUTURE 2035 BASELINE CONDITIONS

Roadway Segment	Calculated Traffic Noise Levels at 25 feet from Roadway, CNEL (dBA)			
	Future No Project (2017) (A)	Future with Project (Opening Year 2035)[a] (B)	Future Project Increment (B-A)	Exceed Threshold?
Pepper Avenue				
Between Rialto Avenue and Foothill Avenue	70.0	70.0	0.0	No
Between Foothill Avenue and Etiwanda Avenue	69.4	69.7	0.3	No
Between Etiwanda Avenue and Baseline Road	69.2	69.6	0.4	No
Between Baseline Road and Mariposa Drive	67.9	68.7	0.8	No
Between Mariposa Drive and Winchester Drive	68.0	68.8	0.8	No
Between Winchester Drive and Highland Avenue	67.9	68.6	0.7	No
Highland Avenue				
Between Commercial Driveway and Pepper Avenue	69.2	69.4	0.2	No
Between Pepper Avenue and Macy Street	70.2	70.4	0.2	No
Between Macy Street and State Street	70.4	70.5	0.1	No
Between Commercial Driveway and Easton Street	67.7	67.8	0.1	No
State Street				
North of Highland Avenue	68.9	68.9	0.0	No
South of SR-210 EB Ramps	68.2	68.3	0.1	No
Eucalyptus Avenue				
Between Walnut Avenue and Winchester Drive	62.6	63.2	0.6	No
Between Winchester Drive and Baseline Road	64.5	64.5	0.0	No
Winchester Drive				
Between Eucalyptus Avenue and Pepper Avenue	62.6	62.9	0.3	No
Baseline Road				
Between Eucalyptus Avenue and Pepper Avenue	70.8	70.9	0.1	No
Between Pepper Avenue and Meridian Avenue	70.5	70.6	0.1	No
Riverside Avenue				
North of SR-210 WB Ramps	72.4	72.4	0.0	No
Between SR-210 EB Ramps and Easton Street	73.3	73.3	0.0	No
Easton Street				
Between Riverside Avenue and Highland Avenue	66.5	66.6	0.9	No
West of Riverside Avenue	67.4	67.4	0.0	No

Roadway Segment	Calculated Traffic Noise Levels at 25 feet from Roadway, CNEL (dBA) Future No Project (2017) (A)	Future with Project (Opening Year 2035)[a] (B)	Future Project Increment (B-A)	Exceed Threshold?
Mariposa Drive				
West of Pepper Avenue	58.2	58.2	0.0	No
East of Pepper Avenue	58.1	58.1	0.0	No
Etiwanda Avenue				
West of Pepper Avenue	61.2	61.4	0.2	No
East of Pepper Avenue	61.3	61.4	0.1	No
Rialto Avenue				
West of Pepper Avenue	68.2	68.3	0.1	No
East of Pepper Avenue	68.6	68.7	0.1	No
Future Roadway Segment				
Pepper Avenue (Future Roadway)				
Between Main Driveway and SR-210 EB Ramps	68.1	70.5	2.4	No
North of SR-210 WB Ramps	67.6	68.1	0.5	No

[a] Include future growth plus cumulative projects and Project traffic.

Source: ESA PCR 2016.

(b) Impacts from On-site Stationary Noise Sources

On-site noise sources from commercial uses would normally include mechanical HVAC equipment, loading dock, and trash collection. The on-site noise sources would be designed with noise control features, including screens and barriers, which would shield the noise sources to the sensitive receptors to meet the City's exterior noise standards. As such, less than significant noise impacts would occur due to on-site stationary noise sources.

Potential future residents of the Pepper Avenue Specific Plan would generate and would be exposed to on-site noise sources typical of urban neighborhood related activities including; doors slamming, air conditioning units, lawn care equipment, radio/ stereos systems, domestic animals, etc. These noise sources contribute to the ambient noise levels experienced in similarly-developed areas and typically do not exceed the noise standards for the types of land uses proposed on the Pepper Avenue Specific Plan. In addition, these noise sources are consistent with adjacent uses in the Project vicinity. Therefore, residential-related point-source noise impacts would be less than significant.

(c) Site Compatibility (Proposed On-site Noise Sensitive Uses)

The Project could locate new noise-sensitive uses on the Project Site near Pepper Avenue and SR-210. The Project would have a significant impact if potential future residential uses are exposed to an exterior noise level of greater than 65 dBA CNEL for outdoor living areas or an interior noise level of greater than 45 dBA CNEL. This would be primarily due to traffic noise. To ensure potentially significant are reduced to a less than significant level in this regard, Mitigation Measure Noise-1 is prescribed.

(3) Vibration Impacts

(a) Structural Impacts

Threshold Noise 3: The Project would have a significant impact if Project construction activities would cause a PPV ground-borne vibration level to exceed 0.5 inches per second at the nearest off-site residential use.

Impact Statement Noise-3: Construction activities would result in sporadic, temporary vibration effects adjacent to the Project Site, which would not exceed established thresholds. Thus, construction vibration impacts would be less than significant.

Construction machinery and operations can generate varying degrees of ground vibration, depending on the construction procedures and the construction equipment used. The operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of a construction site often varies depending on soil type, ground strata, and construction characteristics of the receptor buildings. The results from vibration impacts can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Ground-borne vibration from construction activities rarely reaches the levels that damage structures. FTA has published standard vibration velocities, in terms of PPV, for construction equipment operations. The typical vibration PPV levels for construction equipment pieces anticipated to be used during Project construction are listed in **Table 4.G-11**, *Typical Vibration Velocities for Potential Project Construction Equipment*.

With regard to the Project, high levels of ground-borne vibration would be generated primarily during site clearing and grading activities and by off-site haul-truck traveling on surface streets. As such, ground-borne vibration impacts are therefore usually confined to short distances (i.e., 50 feet or less) from the source. As indicated in 4.G-10, vibration velocities from the operation of construction equipment would range from approximately 0.003 to 0.089 inches per second PPV at 25 feet from the equipment. Usually, ground-borne vibration decreases rapidly with distance. As indicated in Table 4.G-11, the vibration velocity of 0.089 inches per second PPV at a distance of 25 feet from construction equipment would be reduced to 0.031 inches per second PPV at 50 feet distance. At a distance of 200 feet from the source of activity, vibration velocities from the construction equipment would further reduce to 0.004 inch/second PPV.

TABLE 4.G-11
TYPICAL VIBRATION VELOCITIES FOR POTENTIAL PROJECT CONSTRUCTION EQUIPMENT

	Reference Vibration Source Levels, PPV (inch/second)			
Equipment	**25 feet**	**50 feet**	**100 feet**	**200 feet**
Large bulldozer	0.089	0.031	0.011	0.004
Caisson drilling	0.089	0.031	0.011	0.004
Loaded trucks	0.076	0.027	0.010	0.003
Jackhammer	0.035	0.012	0.004	0.002
Small bulldozer	0.003	0.001	0.0004	0.0001

Source: USDOT Federal Transit Administration, 2006.

The nearest vibration sensitive receptors to the Project Site are:

- Semi-rural residence, 200 feet east of the Project boundary, and
- Single family residences, 200 feet southwest of the Project boundary; however, Project construction activity would be 800 feet from these residences.

The vibration level of 0.089 inches per second PPV at 25 feet from a large bulldozer would be approximately 0.004 inches per second PPV at 200 feet distance. The estimated vibration level of 0.004 inches per second PPV at the nearest sensitive receptors is below the Project's significance threshold of 0.5 inches per second for residential structures. Therefore, vibration impacts associated with construction activities would be less than significant.

(b) Human Annoyance

Threshold Noise 4: The Project would have a significant impact on human annoyance if Project construction or operation activities would cause ground-borne vibration levels to exceed 0.035 inch per second PPV at the nearest off-site sensitive uses.

Impact Statement Noise-4: Project operation would not generate excessive vibration levels at nearby sensitive receptor locations. Thus, long-term vibration impacts would be less than significant.

(i) Construction

As discussed above, the nearest off-site residential structures are the residential buildings located approximately 200 feet from the construction site, which would be exposed to vibration velocities ranging approximately from 0.0001 to 0.004 inches per second PPV. These values are below the 0.035 inches per second PPV perception threshold and would not be perceptible. Therefore, vibration impacts during construction would be less than significant.

(ii) Operation

The Project's operations would include typical commercial-grade stationary mechanical and electrical equipment, such as air handling units, condenser units, and exhaust fans, which would

produce vibration. In addition, the primary sources of transient vibration would include passenger vehicle circulation within the proposed parking area. Ground-borne vibration generated by each of the above-mentioned activities would generate approximately up to 0.005 inches per second PPV adjacent to the Project Site. The potential vibration levels from all Project operational sources at the closest existing and future sensitive receptor locations would be less than the significance threshold of 0.035 inches per second PPV for perceptibility. As such, vibration impacts associated with operation of the Project would be below the significance threshold and impacts would be less than significant.

e. Cumulative Impacts

As discussed in Chapter 3, Basis for Cumulative Analysis, there is one related project (#9) located in the nearby vicinity of the Project Site, which is located south of the Project Site along Pepper Avenue. The other related projects are located over one mile from the Project Site. Proposed Project development and other planned developments (related projects) would likely contribute to cumulative noise impacts. The potential for cumulative noise impacts to occur are specific to the location of each related project and their stationary noise sources from the Project Site, as well as the cumulative traffic that these projects would add to on the surrounding roadway network.

(1) Construction Noise

Noise from on-site construction activities would only affect the areas immediately adjacent to the Project Site, less than 500 feet from the construction site, due to sound attenuation provided by the distance and the intervening buildings between the construction sites and the noise sensitive receptors. Since the timing of the construction activities for these related projects cannot be defined, any quantitative analysis that assumes multiple, concurrent construction projects would be entirely speculative. Construction activities from the cumulative projects would generate noise at each project site and cumulative construction noise could exceed ambient noise levels at the nearest residences. However, those noise levels would be intermittent, temporary and would cease at the end of the construction phase, and would comply with time restrictions and other relevant provisions in the City's Municipal Code. Noise associated with cumulative construction activities would be reduced to the degree reasonably and technically feasible through proposed mitigation measures for each individual project and compliance with locally adopted and enforced noise ordinances. As construction activities would be required to comply with the City's allowable hours as described above and would be temporary, construction-related noise would result in a less than significant noise impact.

(2) Operation

The Project Site and surrounding area would be developed and would generate noise that would contribute to cumulative noise from a number of community noise sources including vehicle travel, mechanical equipment (e.g., HVAC systems), and lawn maintenance activities. Due to City's provisions that limit on-site stationary-source noise such as outdoor air-conditioning equipment, noise levels would be less than significant at the property line for each related project. As the Project's stationary-source impacts would be less than significant, stationary-source noise impacts attributable to cumulative development would also be less than significant. However, the

Project and other developments in the Project vicinity would produce traffic volumes that are capable of generating a roadway noise impacts.

Cumulative noise impacts due to roadway traffic have been assessed based on the difference between noise generated by existing traffic volumes and traffic volumes projected at the Project opening year (2017) and are presented in **Table 4.G-12,** *Off-Site Traffic Noise Impacts – Opening Year 2017 Cumulative Increment*. As indicated in Table 4.G-12, the maximum cumulative noise increase from the Project plus cumulative Project traffic would be 20.7 dBA, CNEL, which would occur along Pepper Avenue, between Winchester Drive and Highland Avenue. This increase in sound level would exceed "clearly noticeable" increase of 5.0 dBA, CNEL in an area characterized by normally compatible noise levels (see Table 4.G-5). The cumulative noise increases, when measured against the 2017 Opening Year conditions, would be potentially significant. However, even with the increase of 20.7 dBA CNEL along Pepper Avenue, between Winchester Drive and Highland Avenue, the noise level of 63.3 dBA, CNEL would be still within normally compatible noise level. Therefore, no mitigation measures would be required.

TABLE 4.G-12
OFF-SITE TRAFFIC NOISE IMPACTS – OPENING YEAR 2017 CUMULATIVE INCREMENT

Roadway Segment	Calculated Traffic Noise Levels at 25 feet from Roadway, CNEL (dBA)		Future Project Increment (B-A)	Exceed Threshold?
	Existing (A)	Future with Project (Opening Year 2017)[a] (B)		
Pepper Avenue				
Between Rialto Avenue and Foothill Avenue	67.8	68.2	0.4	No
Between Foothill Avenue and Etiwanda Avenue	66.3	67.0	0.7	No
Between Etiwanda Avenue and Baseline Road	66.3	67.2	0.9	No
Between Baseline Road and Mariposa Drive	61.5	64.4	2.9	No
Between Mariposa Drive and Winchester Drive	60.2	64.2	4.0	No
Between Winchester Drive and Highland Avenue	42.6	63.3	20.7	**Yes**
Highland Avenue				
Between Commercial Driveway and Pepper Avenue	64.3	66.3	2.0	No
Between Pepper Avenue and Macy Street	64.3	66.8	2.5	No
Between Macy Street and State Street	66.0	67.4	1.4	No
Between Commercial Driveway and Easton Street	64.1	65.0	0.9	No
State Street				
North of Highland Avenue	65.4	66.4	1.0	No
South of SR-210 EB Ramps	64.9	66.2	1.3	No
Eucalyptus Avenue				
Between Walnut Avenue and Winchester Drive	60.4	61.6	1.2	No
Between Winchester Drive and Baseline Road	63.1	63.4	0.3	No

Roadway Segment	Calculated Traffic Noise Levels at 25 feet from Roadway, CNEL (dBA)		Future Project Increment (B-A)	Exceed Threshold?
	Existing (A)	Future with Project (Opening Year 2017)[a] (B)		
Winchester Drive				
Between Eucalyptus Avenue and Pepper Avenue	59.2	60.2	1.0	No
Baseline Road				
Between Eucalyptus Avenue and Pepper Avenue	68.2	68.7	0.5	No
Between Pepper Avenue and Meridian Avenue	67.5	68.2	0.7	No
Riverside Avenue				
North of SR-210 WB Ramps	69.5	70.1	0.6	No
Between SR-210 EB Ramps and Easton Street	72.1	72.5	0.4	No
Easton Street				
Between Riverside Avenue and Highland Avenue	64.9	65.3	0.4	No
West of Riverside Avenue	64.5	65.0	0.5	No
Mariposa Drive				
West of Pepper Avenue	55.3	55.9	0.6	No
East of Pepper Avenue	53.6	54.7	1.1	No
Etiwanda Avenue				
West of Pepper Avenue	60.5	60.9	0.4	No
East of Pepper Avenue	60.7	61.2	0.5	No
Rialto Avenue				
West of Pepper Avenue	65.9	66.2	0.3	No
East of Pepper Avenue	67.0	67.4	0.4	No

[a] Include future growth plus cumulative projects and Project traffic.

Source: ESA PCR 2016.

Cumulative noise impacts due to roadway traffic have been assessed based on the difference between noise generated by existing traffic volumes and traffic volumes projected at the Long Range year (2035) and are presented in **Table 4.G-13** *Off-Site Traffic Noise Impacts – Long Range Year 2035 Cumulative Increment.*

TABLE 4.G-13
OFF-SITE TRAFFIC NOISE IMPACTS – LONG RANGE YEAR 2035 CUMULATIVE INCREASE

Roadway Segment	Calculated Traffic Noise Levels at 25 feet from Roadway, CNEL (dBA)		Future Project Increment (B-A)	Exceed Threshold?
	Existing (A)	Future with Project (Opening Year 2035)[a] (B)		
Pepper Avenue				
Between Rialto Avenue and Foothill Avenue	67.8	70.0	2.2	No
Between Foothill Avenue and Etiwanda Avenue	66.3	69.7	3.4	**Yes**
Between Etiwanda Avenue and Baseline Road	66.3	69.6	3.3	**Yes**
Between Baseline Road and Mariposa Drive	61.5	68.7	7.2	**Yes**
Between Mariposa Drive and Winchester Drive	60.2	68.8	8.6	**Yes**
Between Winchester Drive and Highland Avenue	42.6	68.6	26.0	**Yes**
Highland Avenue				
Between Commercial Driveway and Pepper Avenue	64.3	69.4	5.1	**Yes**
Between Pepper Avenue and Macy Street	64.3	70.4	6.1	**Yes**
Between Macy Street and State Street	66.0	70.5	4.5	**Yes**
Between Commercial Driveway and Easton Street	64.1	67.8	3.7	**Yes**
State Street				
North of Highland Avenue	65.4	68.9	3.5	**Yes**
South of SR-210 EB Ramps	64.9	68.3	3.4	**Yes**
Eucalyptus Avenue				
Between Walnut Avenue and Winchester Drive	60.4	63.2	2.8	No
Between Winchester Drive and Baseline Road	63.1	64.5	1.4	No
Winchester Drive				
Between Eucalyptus Avenue and Pepper Avenue	59.2	62.9	3.7	No
Baseline Road				
Between Eucalyptus Avenue and Pepper Avenue	68.2	70.9	2.7	No
Between Pepper Avenue and Meridian Avenue	67.5	70.6	3.1	**Yes**
Riverside Avenue				
North of SR-210 WB Ramps	69.5	72.4	2.9	No
Between SR-210 EB Ramps and Easton Street	72.1	73.3	1.2	No
Easton Street				
Between Riverside Avenue and Highland Avenue	64.9	66.6	1.7	No
West of Riverside Avenue	64.5	67.8	2.9	No
Mariposa Drive				
West of Pepper Avenue	55.3	58.2	2.9	No
East of Pepper Avenue	53.6	58.1	4.5	No

Roadway Segment	Calculated Traffic Noise Levels at 25 feet from Roadway, CNEL (dBA) Existing (A)	Future with Project (Opening Year 2035)[a] (B)	Future Project Increment (B-A)	Exceed Threshold?
Etiwanda Avenue				
West of Pepper Avenue	60.5	61.4	0.9	No
East of Pepper Avenue	60.7	61.4	0.7	No
Rialto Avenue				
West of Pepper Avenue	65.9	68.3	2.4	No
East of Pepper Avenue	67.0	68.7	1.7	No

[a] Include future growth plus cumulative projects and Project traffic.

Source: ESA PCR 2016.

As indicated in Table 4.G-13, the following eight roadway segments would have a cumulative noise increase ranging from 3.1 to 26.0 dBA CNEL, which would exceed the Project's significance threshold increase of 5 dBA, CNEL or more, and the resulting noise falls on a noise-sensitive land use within an area categorized as either "clearly compatible" or "normally compatible" (see Table 4.G-5 for description of these categories); or 3 dBA, CNEL or more, and the resulting noise falls on a noise-sensitive land use within an area categorized as either "normally incompatible" or "clearly incompatible." Therefore, impacts would be significant.

- *Pepper Avenue – between Foothill Avenue and Etiwanda Avenue (residential)*
- *Pepper Avenue – between Etiwanda Avenue and Baseline Road (residential)*
- *Pepper Avenue – between Baseline Road and Mariposa Drive (residential)*
- *Pepper Avenue – between Mariposa Drive and Winchester Drive (residential)*
- *Pepper Avenue – between Winchester Drive and Highland Avenue (residential)*
- *State Street - North of Highland Avenue (commercial/residential)*
- *State Street - South of SR-210 EB Ramps (residential)*
- *Baseline Road – between Pepper Avenue and Meridian Avenue (residential)*

As shown in Table 4.G-13, there are threshold exceedances of the Project segments of Highland Avenue, however, there are no existing noise sensitive uses along these roadway segments.

(3) Ground-Borne Vibration

Due to the rapid attenuation characteristics of ground-borne vibration and distance of the cumulative projects to the Project Site, there is no potential for cumulative construction- or operational-period impacts with respect to ground-borne vibration. Therefore, impacts would be less than significant.

4. Mitigation Measures

Mitigation Measure Noise-1: Prior to approval of design review permits for sensitive uses, to reduce and/or ensure exterior noise levels are at or below 65 CNEL at potential outdoor sensitive uses (i.e., residential courtyards, parks, and passive recreation areas) proposed by the Specific Plan, a combination of sound barrier walls, earthen berms, and landscaping shall be designed and implemented by a qualified acoustical consultant, as necessary. Alternatively, outdoor uses shall be located behind buildings (not facing traffic corridors) in a manner that shields outdoor sensitive uses from roadway noise and reduces the exterior noise level to 65 CNEL or below. Also, an acoustical engineer shall submit evidence, along with the application for a building permit, any design plans or features of sound insulation sufficient to mitigate interior noise levels below a CNEL of 45 dBA in any habitable room.

5. Level of Significance After Mitigation

Construction-related noise and vibration impacts to existing off-site and future on-site sensitive uses would be less than significant and no mitigation is necessary. The Project's stationary source noise impacts to on- and off-site sensitive uses during Project operation would be less than significant and no mitigation measures are required. Impacts associated with consistency with applicable plans, policies, and regulations would also be less than significant.

However, cumulative off-site traffic-related noise impacts would be significant and unavoidable for the existing residential uses in the surrounding area since no additional mitigation measures would be feasible (i.e., sound walls) along the existing roadways. As such, if the City of Rialto approves the Project, the City shall be required to cite their findings in accordance with Section 15091 of the *CEQA Guidelines* and prepare a Statement of Overriding Considerations in accordance with Section 15093 of the *CEQA Guidelines*.

6. References

Bies & Hansen, Engineering Noise Control, 1988.

California Department of Transportation (Caltrans), Technical Noise Supplement (TeNS), 2013.

_____, Transportation Related Earthborne Vibrations, page 4, February 2002.

Caltrans, Transportation- and Construction-Induced Vibration Guidance Manual, Table 20, 2004.

City of Rialto Noise Ordinance (Rialto Municipal Code, Section 9.50.030)

Federal Transit Administration (FTA), Transit Noise and Vibration Impact Assessment, page 7-3, May 2006.

Laymond N. Miller, Noise Control for Buildings and Manufacturing Plants, Bolt Beranek and Newman Inc., 1981.

Marlie Whiteman, P.E, June 2015, January 2016 (Revised). Pepper Avenue Specific Plan, Traffic Impact Analysis.

Noise Element of the General Plan for the City of Rialto, November 1, 1991.

H. Transportation

1. Introduction

This section analyzes potential impacts with construction traffic; and operational impacts on the following facilities: intersection capacities, roadway segment capacities, traffic signal warrants, freeway mainline segments, the regional transportation system, public transit, access and circulation, including pedestrian and bicycle safety, and parking. This section is based on the Pepper Avenue Specific Plan Traffic Impact Analysis (herein referred to as the "Traffic Impact Analysis"), prepared by Urban Crossroads, Inc., dated January 13, 2016. The Traffic Impact Analysis, which provides more detailed information, data, and analyses, is included as Appendix G of this Draft EIR. The Traffic Impact Analysis has been developed through consultation with the City of Rialto and follows the City of Rialto's and the California Department of Transportation's (Caltrans) traffic study requirements. To ensure that the Traffic Impact Analysis satisfied the City of Rialto's traffic study requirements, Urban Crossroads, Inc., prepared a Project traffic study scoping package for review by the City of Rialto staff prior to the preparation of the Traffic Impact Analysis. The Agreement provides an outline of the Project study area, trip generation, trip distribution, and analysis methodology. The Agreement approved by the City of Rialto is included as an appendix to the Traffic Impact Analysis.

2. Environmental Setting

a. Existing Conditions

(1) Regional and Local Access

Regionally, the City of Rialto is located within the southwestern portion of San Bernardino County in the largely developed San Bernardino Valley Region. The Pepper Avenue Specific Plan would encompass approximately 101.7 acres within the eastern portion of the City or Rialto. Regional access to the Project Site would be provided by the Pepper Avenue interchange with the State Route 210 (SR-210) Freeway. The Project Site would be locally accessed via Pepper Avenue from the north and south.

Per Exhibit 3-2 of the City of Rialto General Plan Circulation Element, Pepper Avenue is planned as a Major Arterial, which the City of Rialto General Plan indicates has "at least two lanes of travel in each direction, left turn lanes at intersections, and parking lanes." The long range analysis included in the Traffic Impact Analysis represents 2035 conditions, and includes 2 lanes each direction (4 lanes total) on Pepper Avenue. This assumption of 4 lanes is consistent with other recent studies, including the State Route 210 / Pepper Avenue New Interchange Project Initial Study [with proposed Negative Declaration] / Environmental Assessment (Caltrans, May 2014).

The City of Rialto General Plan Roadway Cross-Section for a Major Arterial (Exhibit 3-3 illustrates the City of Rialto General Plan Roadway Cross-Sections) typically shows a 16-foot median with three lanes in each direction. However, a wider median (at least 24 feet) and two lanes in each direction have been found to be an appropriate design in the Project vicinity.

(2) Study Area Intersections

The study area includes a total of 24 existing and future intersections as illustrated in **Figure 4.H-1**, *Study Intersections Location Map,* and listed in **Table 4.H-1**, *Intersection Analysis Locations*.

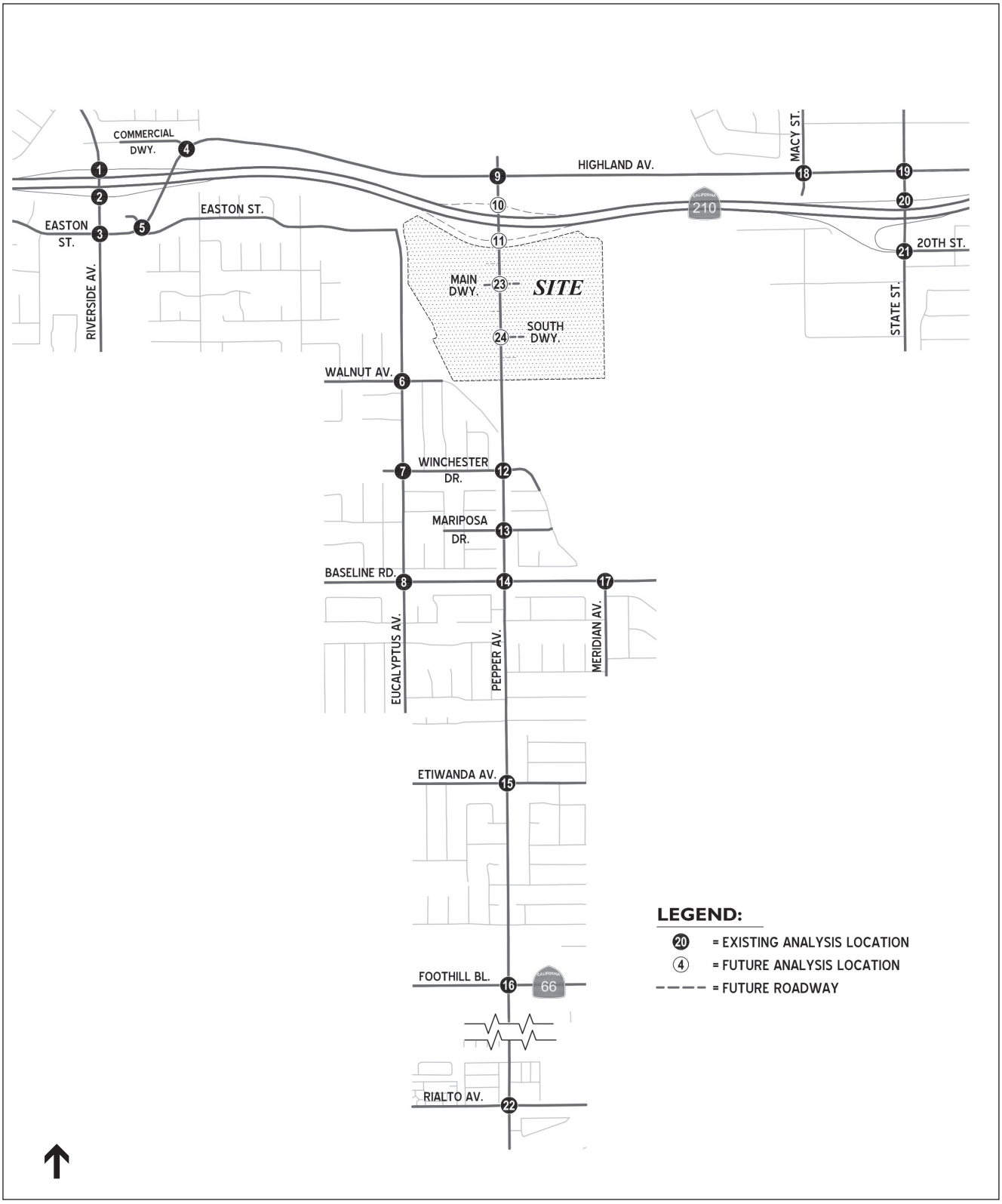
TABLE 4.H-1
INTERSECTION ANALYSIS LOCATIONS

ID	Intersection Location	Location
1	Riverside Avenue/SR-210 WB Ramps	Caltrans
2	Riverside Avenue/SR-210 EB Ramps	Caltrans
3	Riverside Avenue/Easton Street	City of Rialto
4	Highland Avenue/Commercial Driveway	City of Rialto
5	Highland Avenue/Easton Street	City of Rialto
6	Eucalyptus Avenue/Walnut Avenue	City of Rialto
7	Eucalyptus Avenue/Winchester Drive	City of Rialto
8	Eucalyptus Avenue/Baseline Drive	City of Rialto
9	Pepper Avenue/Highland Avenue	City of Rialto
10	Pepper Avenue/SR-210 WB Ramps – *Future*	Caltrans
11	Pepper Avenue/SR-210 EB Ramps – *Future*	Caltrans
12	Pepper Avenue/Winchester Drive	City of Rialto
13	Pepper Avenue/Mariposa Drive	City of Rialto
14	Pepper Avenue/Baseline Road	City of Rialto
15	Pepper Avenue/Etiwanda Avenue	City of Rialto/City of San Bernardino
16	Pepper Avenue/Foothill Boulevard	City of Rialto/City of San Bernardino
17	Meridian Avenue/Baseline Road	City of Rialto/City of San Bernardino
18	Macy Street/Highland Avenue	City of San Bernardino
19	State Street/Highland Avenue	City of San Bernardino
20	State Street/SR-210 WB Ramps	Caltrans
21	State Street/SR-210 EB Ramps – 20th Street	Caltrans
22	Pepper Avenue/Rialto Avenue	City of San Bernardino
23	Pepper Avenue/Main Driveway – *Future*	City of Rialto
24	Pepper Avenue/South Driveway – *Future*	City of Rialto

SOURCE: Pepper Avenue Specific Plan, Traffic Impact Analysis, Urban Crossroads, Inc., dated January 13, 2016.

Of the 24 study intersections, the existing study area circulation network includes 20 intersections.[1] A future interchange is planned for the SR-210 westbound and eastbound ramps at Pepper Avenue (ID#s 10 and 11). The Project driveways (ID#s 23 and 24) are also planned future intersections which do not currently exist.

[1] Exhibit 3-1, Existing Number of Through Lanes and Intersection Controls, of the Traffic Impact Analysis, illustrates the study area intersections located near the Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.



SOURCE: Urban Crossroads, 2016

Pepper Avenue Specific Plan

Figure 4.H-1

Study Intersections Location Map

ESA PCR

(3) Study Area Roadway Segments

The roadway segment analysis locations are listed in **Table 4-H-2**, *Roadway Segment Analysis Locations*. The study area identifies a total of 10 existing/future roadway segments.

TABLE 4.H-2
ROADWAY SEGMENT ANALYSIS LOCATIONS

ID	Intersection Location	Location
1	Highland Avenue, west of Pepper Avenue	City of Rialto
2	Highland Avenue, east of Pepper Avenue	City of Rialto
3	Pepper Avenue, south of Highland Avenue	City of Rialto
4	Pepper Avenue, south of I-210 EB Ramps – *Future*	City of Rialto
5	Pepper Avenue, north of Baseline Road	City of Rialto
6	Pepper Avenue, south of Baseline Road	City of Rialto
7	Pepper Avenue, north of Foothill Boulevard	City of Rialto/City of San Bernardino
8	Winchester Drive, west of Pepper Avenue	City of Rialto
9	Baseline Road, west of Pepper Avenue	City of Rialto
10	Baseline Road, east of Pepper Avenue	City of Rialto

SOURCE: Pepper Avenue Specific Plan, Traffic Impact Analysis, Urban Crossroads, Inc., dated January 13, 2016.

(4) Study Area Freeway Mainline Segments

The study area freeway mainline analysis locations include four freeway mainline segments for SR-210 westbound and eastbound directions of flow as listed in **Table 4.H-3**, *Freeway Mainline Segment Analysis Locations.*

TABLE 4.H-3
FREEWAY MAINLINE SEGMENT ANALYSIS LOCATIONS

ID	Freeway Mainline Segments
1	SR-210 Westbound, east of Pepper Avenue
2	SR-210 Westbound, west of Pepper Avenue
3	SR-210 Eastbound, west of Pepper Avenue
4	SR-210 Eastbound, east of Pepper Avenue

SOURCE: Pepper Avenue Specific Plan, Traffic Impact Analysis, Urban Crossroads, Inc., dated January 13, 2016.

(5) Existing Traffic Counts

Manual weekday AM and PM peak hour turning movement counts were conducted in September 2014. In addition, the turning movement count collection for the intersection of Pepper Avenue/Rialto Avenue was conducted on February 10, 2015. The Existing passenger car equivalents (PCEs) AM and PM peak hour intersection volumes are shown on Exhibit 3-4, Existing (2014) PCE AM Peak Hour Intersection Volumes, and Exhibit 3-5, Existing (2014) PCE PM Peak Hour Intersection Volumes, of the Traffic Impact Analysis, respectively. Existing (2014) average daily traffic (ADT) volumes on arterial highways throughout the study area are shown on Exhibit 3-6, Existing (2014) PCE Average Daily Traffic (ADT), of the Traffic Impact Analysis. The ADT volumes are either based on traffic counts or have been estimated by factoring up peak hour counts. The following formula was used to estimate the daily volume for each intersection leg if daily traffic counts were not available:

Weekday PM Peak Hour (Approach Volume + Exit Volume) X 12 = Leg Volume

(6) Existing Traffic Conditions

(a) Methodologies

Below are the methodologies used to perform the existing traffic analyses within the Traffic Impact Analysis. The methodologies described are generally consistent with City of Rialto and Caltrans traffic study guidelines.

Level of Service

Traffic operations of roadway facilities are described as levels of services (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS "A", representing completely free-flow conditions, to LOS "F", representing breakdown in flow resulting in stop-and-go conditions. LOS "E" represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow. Descriptions of LOS for signalized and unsignalized intersections are provided below.

Level of Service Criteria (Intersections)

The definition of an intersection deficiency has been obtained from each of the applicable jurisdictions.

The City of Rialto and the City of San Bernardino have established specific performance criteria for intersection operations in their respective General Plan Circulation Elements. These performance criteria include standards related to determining the significance of project impacts on the roadway system. The City of Rialto and the City of San Bernardino have established LOS "D" as the minimum LOS for its intersections. Therefore, any intersection operating at LOS "E" or worse would be considered deficient for the purposes of this analysis.

Regarding Caltrans' ramp to arterial intersections and other Caltrans maintained facilities, the published Caltrans traffic study guidelines (December 2002) states the following: "Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities, however, Caltrans acknowledges that this may not be always feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS." As such, LOS "D" is also considered to be the limit of acceptable traffic operations during the peak hour intersections maintained by Caltrans.

Intersection Capacity Analysis

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The Highway Capacity Manual (HCM) 2010 methodology expressed the LOS at an intersection in terms of delay time for the various intersection approaches. The HCM uses different procedures depending on the type of intersection control.

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data. The peak hours selected for analysis include weekday AM peak hour (peak hour between 7:00 AM and 9:00 AM) and weekday PM peak hour (peak hour between 4:00 PM and 6:00 PM).

Signalized Intersections

The City of Rialto requires signalized intersection operations analysis based on the methodology described in Chapter 18 and Chapter 31 of the HCM 2010. Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in **Table 4.H-4**, *Signalized Intersection Description of LOS.*

Unsignalized Intersections

The City of Rialto requires the operations of unsignalized intersections be evaluated using the methodology described in Chapter 19, Chapter 20, and Chapter 32 of the HCM 2010. The LOS rating is based on the weighted average control delay expressed in seconds per vehicle as described in **Table 4.H-5**, *Unsignalized Intersection Description of LOS*.

TABLE 4.H-4
SIGNALIZED INTERSECTION DESCRIPTION OF LOS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A	F
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B	F
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	D	F
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D	F
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E	F
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	80.01 and up	F	F

Note: V/C = volume-to-capacity-ratio.

SOURCE: HCM 2010, Chapter 18; Pepper Avenue Specific Plan, Traffic Impact Analysis, Urban Crossroads, Inc., dated January 13, 2016.

TABLE 4.H-5
UNSIGNALIZED INTERSECTION DESCRIPTION OF LOS

Description	Average Control Delay Per Vehicle (Seconds)	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Little or no delays	0 to 10.00	A	F
Short traffic delays	10.01 to 15.00	B	F
Average traffic delays	15.01 to 25.00	C	F
Long traffic delays	25.01 to 35.00	D	F
Very long traffic delays	35.01 to 50.00	E	F
Extreme traffic delays with intersection capacity exceeded	> 50.00	F	F

Note: V/C = volume-to-capacity-ratio.

SOURCE: HCM 2010, Chapter 19 and Chapter 20; Pepper Avenue Specific Plan, Traffic Impact Analysis, Urban Crossroads, Inc., dated January 13, 2016.

At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole.

Traffic Signal Warrant Analysis

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. The Traffic Impact Analysis used the signal warrant criteria presented in the latest edition of the Federal Highway Administration's (FHWA) Manual on Uniform Traffic Control Devices (MUTCD), as amended by the MUTCD 2012 California Supplement, for all study area intersections.

The signal warrant criteria for Existing conditions are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. Both the FHWA's MUTCD and the MUTCD 2012 California Supplement indicate that the installation of a traffic signal should be considered if one or more of the signal warrants are met. Specifically, the Traffic Impact Analysis utilized the peak hour volume-based warrant 3 as the appropriate representative traffic signal warrant analysis for Existing conditions. Warrant 3 criteria are basically identical for both the FHWA's MUTCD and the MUTCD 2012 California Supplement. Warrant 3 is appropriate to use for the Traffic Impact Analysis as it provides specialized warrant criteria for intersections with rural characteristics (e.g. located in communities with populations of less than 10,000 persons or with adjacent major streets operating above 40 miles per hour). For the purposes of the Traffic Impact Analysis, the speed limit was the basis for determining whether urban or rural warrants were used for a given intersection.

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal may be warranted. Meeting this threshold conditions does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

(b) Existing Conditions Intersection Operations

Existing (2014) peak hour traffic operations analysis results are summarized in **Table 4.H-6**, *Intersection Analysis for Existing (2014) Conditions*. One study area intersection (Eucalyptus Avenue at Baseline Road) operates outside of acceptable LOS during the AM peak hour. All other study area intersections operate at acceptable LOS for Existing conditions.

TABLE 4.H-6
INTERSECTION OPERATIONS ANALYSIS SUMMARY FOR EXISTING (2014) CONDITIONS

			Intersection Approach Lanes[a]																	
			North-bound			South-bound			East-bound			West-bound			Delay[b] (Secs)		Level of Service[b]	
#	Intersection	Traffic Control[c]	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Riverside Av. / SR-210 WB Ramps	TS	2	2	0	0	4	1	0	0	0	1	1!	1	24.1	18.5	C	B
2	Riverside Av. / SR-210 EB Ramps	TS	0	3.5	1.5	2	2	0	1	0.5	1.5	0	0	0	11.2	10.3	B	B
3	Riverside Av. / Easton St.	TS	1	3	0	2	2	1	1	1	0	1	1	1	51.4	34.0	D	C
4	Highland Av. / Commercial Dwy.	CSS	1	2	0	0	2	0	0	1!	0	0	0	0	10.6	10.9	B	B
5	Highland Av. - Easton St. / Easton St.	TS	1	2	0	1	2	0	0	1!	0	1	1	0	18.6	12.7	B	B
6	Eucalyptus Av. / Walnut Av.	AWS	0.5	0.5	d	0.5	0.5	d	0	1!	0	0	1!	0	8.4	7.9	A	A
7	Eucalyptus Av. / Winchester Dr.	CSS	0	1	0	0	1	0	0	0	0	0	1!	0	10.9	10.3	B	B
8	Eucalyptus Av. / Baseline Rd.	TS	0.5	0.5	d	0.5	0.5	d	1	2	0	1	2	0	**>80**	26.8	**F**	C
9	Pepper Av. / Highland Av.	CSS	0	1!	0	0	1!	0	1	2	0	1	2	0	10.8	0.0	B	A
10	Pepper Av. / SR-210 WB Ramps		Future Intersection												--	--	--	--
11	Pepper Av. / SR-210 EB Ramps		Future Intersection												--	--	--	--
12	Pepper Av. / Winchester Dr.	CSS	0.5	0.5	d	0.5	0.5	d	0	1!	0	0	1!	0	14.3	9.4	B	A
13	Pepper Av. / Mariposa Dr.	CSS	0.5	0.5	d	0.5	0.5	d	0	1!	0	0	1!	0	13.7	9.4	B	A
14	Pepper Av. / Baseline Rd.	TS	1	2	0	1	2	0	1	2	0	1	2	0	15.2	10.8	B	B
15	Pepper Av. / Etiwanda Av.	AWS	1	1	0	1	2	0	0	1!	0	0	1!	0	23.6	13.5	C	B
16	Pepper Av. / Foothill Bl.	TS	1	2	0	1	2	0	1	2	1	1	2	d	18.7	15.7	B	B
17	Meridian Av. / Baseline Rd.	TS	1	0	1	0	0	0	0	2	0	1	2	0	9.5	9.4	A	A
18	Macy St. / Highland Av.	TS	0	1!	0	0.5	0.5	1	1	2	0	1	2	0	49.6	16.4	D	B
19	State St. / Highland Av.	TS	1	3	1	1	2	1	1	2	1	2	2	d	30.1	40.2	C	D
20	State St. / SR-210 WB Ramps	TS	2	2	0	0	1.5	1.5	0	0	0	1	1!	1	10.4	10.6	B	B
21	State St. / SR-210 EB Ramps	TS	2	2	0	1	1.5	1.5	1	1!	1	1	1	0	29.4	27.4	C	C
22	Pepper Av. / Rialto Av.	TS	1	2	0	1	2	0	1	2	0	1	2	0	24.0	23.2	C	C
23	Pepper Av. / Main Dwy.		Future Intersection												--	--	--	--
24	Pepper Av. / South Dwy.		Future Intersection												--	--	--	--

[a] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 1! = Shared Left-Through-Right turn lane

[b] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. (or movements sharing a single lane) are shown. **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS). Delay and level of service calculated using Synchro 8.0 analysis software.

[c] TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop.

SOURCE: HCM 2010, Chapter 11; Pepper Avenue Specific Plan, Traffic Impact Analysis, Urban Crossroads, Inc., dated January 13, 2016.

(c) Existing Conditions Traffic Signal Warrant Analysis

A traffic signal warrant analyses were performed for the unsignalized study area intersections listed in **Table 4.H-7**, *Traffic Signal Warrant Analysis Locations*.

TABLE 4.H-7
TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

ID	Intersection Location	Location
4	Highland Avenue/Commercial Driveway	City of Rialto
6	Eucalyptus Avenue/Walnut Avenue	City of Rialto
7	Eucalyptus Avenue/Winchester Drive	City of Rialto
9	Pepper Avenue/Highland Avenue	City of Rialto
12	Pepper Avenue/Winchester Drive	City of Rialto
13	Pepper Avenue/Mariposa Drive	City of Rialto
15	Pepper Avenue/Etiwanda Avenue	City of Rialto/City of San Bernardino

SOURCE: Pepper Avenue Specific Plan, Traffic Impact Analysis, Urban Crossroads, Inc., dated January 13, 2016.

For Existing (2014) conditions, the unsignalized study area intersections do not warrant traffic signals. Refer to Appendix 3.3 in the Traffic Impact Assessment for further details on the traffic signal warrant analysis.

(7) Alternative Transportation

The City of Rialto is served by OmniTrans, the transit service for San Bernardino County. The Project Site is not currently served by OmniTrans. Transit service is reviewed and updated by OmniTrans periodically to address ridership, budget and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhances or reduced service where appropriate.

Currently, no on-street bicycle lanes are provided in the Project area along Pepper Avenue. However, sidewalks have been constructed along Pepper Avenue within the Project Site.

b. Regulatory Framework Summary

(1) Federal

There are no federal transportation regulations pertinent to the Project.

(2) State

(a) Congestion Management Program

The Congestion Management Program (CMP) is a state-mandated program enacted by the State legislature to address the increasing concern that urban congestion is affecting the economic vitality of the state and diminishing the quality of life in some communities. The hallmark of the CMP program is that it is intended to address the impact of local growth on the regional transportation system. Statutory requirements of the CMP include monitoring LOS on the CMP Highway and Roadway network, measuring frequency and routing of public transit, implementing the Transportation Demand Management and Land Use Analysis Program and helping local jurisdictions meet their responsibilities under the CMP.

The CMP requires that, when an environmental impact report is prepared for a project, traffic and public transit impact analyses be conducted for select regional facilities based on the quantity of project traffic expected to use those facilities. The CMP guidelines state that areas selected for analysis should be those that include the following locations:

- All CMP arterial monitoring intersections, including monitored on- or off-ramp intersections, where the proposed project would add 50 or more trips during either the AM or PM weekday peak hours of adjacent street traffic; and
- Mainline freeway morning locations where the project would add 150 or more trips, in either direction, during either the AM or PM weekday peak hours.

The San Bernardino Associated Governments (SANBAG), the local CMP agency, recently completed the updated 2016 San Bernardino County Congestion Management Program. This document identifies goals of the program, defines legal requirements, provides other background information and describes each individual element, component, and requirement of the program. It also reflects all legislative changes to the program since its inception in 1992.

(3) Regional

(a) Southern California Association of Governments Regional Transportation Plan

The Southern California Association of Governments' (SCAG) Regional Transportation Plan (RTP) is a federal- and state-mandated transportation plan that envisions the future multi-modal transportation system for the region and provides the basic framework for coordinated, long-term investment in the regional transportation system over the RTP planning horizon of 2035. In compliance with state and federal requirements, SCAG prepares the Regional Transportation Improvement Program (RTIP) to implement projects and programs listed in the RTP. Updated every other year, the RTP contains a listing of all transportation projects proposed for the region over a six-year period. Transportation projects proposed in the region are required to be consistent with the RTP and included within the RTIP to be eligible for State or federal funding.

The 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) was adopted by SCAG on April 4, 2012. The 2012-2035 RTP/SCS identifies mobility as an important component of a much larger picture with added emphasis on sustainability and integrated planning. In addition, the RTP/SCS includes goals and policies that pertain to mobility, accessibility, safety, productivity of the transportation system, protection of the environment and energy efficiency, and land use and growth patterns that complement the State and region's transportation investments. An integral component of the RTP/SCS is a strong commitment to reduce emissions from transportation sources, in order to comply with Senate Bill 375, improve public health, and meet the National Ambient Air Quality Standards as set forth by the Clean Air Act. For further discussion of air quality and greenhouse gas emissions, see Section 4.B, Air Quality, and Section 4.E, Greenhouse Gas Emissions, respectively, of this Draft EIR.

(4) Local

(a) City of Rialto General Plan (2010)

The City of Rialto General Plan (2010), Chapter 4, Making the Connections: the Circulation Chapter, provides policy direction to create a system of Complete Streets. Complete Streets refers to a multi-modal transportation network designed and operated to meet the needs of all users. Pedestrians, bicyclists, motorists, persons with disabilities, movers of commercial goods, and public transportation users of all ages and abilities are able to safely access and use streets and transportation modes to reach their destinations. Implementing a Complete Street program involves identifying the hierarchy of travel corridors in the City; defining a citywide transit plan; identifying a citywide bicycle network; including provisions for bike lanes on many roadway types in the roadway design standards; and includes policies and implementation actions to encourage the use of transit, bicycling, and walking. The Circulation Chapter implements Complete Streets concept by identifying a hierarchy of travel corridors that accommodates car trips, bike trips, pedestrian movement, trucks, and transit. Through the goals and policies of the Circulation Chapter, the City of Rialto strives to meet diverse mobility needs and reduce vehicle miles traveled, which will reduce greenhouse gas emissions, address climate change, and mitigate roadway congestion.

3. Environmental Impacts

a. Methodologies

(1) Construction Traffic

The analysis of construction traffic includes a qualitative discussion of construction-related trips (i.e., construction worker trips and construction truck trips) that would occur as a result of the Project, the contributions of those trips to the local traffic system, and an analysis of the potential conflicts between construction activity and on-going activity in the Project vicinity. The potential impact of construction traffic, including haul trucks, would be a lessening of the capacities of access streets and haul routes due to slower movements and larger turning radii of trucks. Potential conflicts, including vehicular, pedestrian, and bicyclists are evaluated. More specifically, potential impacts to school routes were evaluated in light of the proximity of nearby schools.

(2) Analysis Scenarios

Potential impacts to traffic and circulation have been assessed for each of the following conditions:

- Existing Plus Project conditions;
- Opening Year (2017) Without Project conditions;
- Opening Year (2017) With Project conditions;
- Long Range (2035) Without Project conditions; and
- Long Range (2035) With Project conditions.

As discussed under Impact Statement TRAF-1 below, despite the small increase in trips during the AM peak under the With Residential Overlay scenario, the Without Residential Overlay scenario with greater PM peak hour and daily trips represents the more conservative or worse-case traffic scenario. Accordingly, the Without Residential Overlay scenario is evaluated throughout this traffic analysis.

(a) Existing (2014) Conditions (Baseline)

Information for Existing (2014) conditions is disclosed to represent the baseline traffic conditions as they existed at the time the Traffic Impact Analysis was prepared.

(b) Existing Plus Project Conditions

The Existing Plus Project conditions analysis determines significant traffic impacts that would occur on the existing roadway system with the addition of Project traffic. Pursuant to the approved scoping agreement with the City of Rialto, the Existing Plus Project conditions analysis is intended to identify the Project-specific impacts associated solely with the development of the Project based on a comparison of the Existing Plus Project conditions to Existing conditions. The Pepper Avenue/SR-210 Freeway interchange ramps are projected to be constructed before or in conjunction with the Project.

(c) Opening Year (2017) Project Conditions

The Opening Year (2017) Without Project traffic volumes have been estimated based on an interpolation between Existing (2014) traffic and Long Range (2035) traffic, and then superimposing the traffic volumes associated with other known cumulative development projects in the study area. In addition, Opening Year (2017) Without Project traffic volumes along the future extension of Pepper Avenue, between Winchester Drive and Highland Avenue, also take into account the published Opening Year (2016) volumes from the State Route/210 Pepper Avenue Interchange Traffic Impact Analysis, prepared by IBI Group, dated March 2012.

The Opening Year (2017) conditions analysis determines near-term cumulative traffic impacts based on a comparison of the Opening Year (2017) With Project traffic scenario to the Opening Year (2017) Without Project traffic scenario. The Opening Year (2017) analysis is utilized to determine if Project mitigation measures and improvements funded through transportation mitigation fee programs, such as the City of Rialto Development Impact Fee (DIF) Program, or other approved funding mechanism can accommodate the near-term cumulative traffic at the target LOS identified in the City of Rialto General Plan. If the “funded” improvements can provide the target LOS, then the Project’s payment into these fee programs could be considered as cumulative mitigation through the conditions of approval.

(d) Long Range (2035) Conditions

The Long Range (2035) conditions presented in this analysis were developed using the San Bernardino Transportation Analysis Model (SBTAM). The future weekday peak hour forecasts used in the traffic analysis were refined using the Horizon Year traffic forecasts along with existing peak hour traffic count data collected at intersection analysis locations. The traffic model zone structure is not designed to provide accurate turning movements along arterial roadways unless refinement and reasonableness checking is performed.

In addition, initial SBTAM turning volume estimates has also been adjusted accordingly based on the published 2035 volumes from the Renaissance Rialto Traffic Impact Analysis, prepared by LSA, dated July 2010, and 2036 volumes from the State Route/210 Pepper Avenue Interchange Traffic Impact Analysis, prepared by IBI Group, dated March 2012. The initial SBTAM estimates of the future peak hour turning movements have, therefore, been reviewed for reasonableness. The reasonableness checks performed include a review of traffic flow conservation in addition to a comparison with the existing actual counted volume. Where necessary, the initial raw model estimates have been adjusted to achieve flow conservation, reasonable growth, and reasonable diversion between parallel routes.

(3) Methodologies to Perform Project Traffic Analyses

(a) Intersections Levels of Service

The analyses of impacts to intersections LOS is prepared for each of the Existing, Opening Year (2017) and Long-Range (2035) scenarios. The definitions and methodology to determine LOS for signalized and unsignalized intersections are based on the HCM methodologies described above under Existing Conditions. The same HCM definitions and methodologies are applied to address impacts under the Project.

(b) Traffic Signal Warrants

Future intersections that do not currently exist have been assessed regarding the potential need for new traffic signals based on future ADT volumes, using the Caltrans planning level ADT-based signal warrant analysis worksheets. For the purpose of this analysis, the planned traffic signals for Pepper Avenue/SR-210 WB Ramps (intersection #10) and Pepper Avenue/SR-210 EB Ramps (intersection #11) are assumed in place for future conditions (Existing Plus Project, Opening Year [2017] Without and With Project, and Long Range [2035] Without and With Project).

(c) Roadway Segment Capacity Analysis

Roadway segment operations are evaluated using the City of Rialto Roadway Capacity provided in Exhibit D of the City's TIA Guidelines. The roadway segment analysis focuses on Long Range (2035) With Project conditions. The daily roadway segment capacities for each type of roadway are summarized in **Table 4.H-8**, *City of Rialto Roadway Capacity*.

TABLE 4.H-8
CITY OF RIALTO ROADWAY CAPACITY[a]

Roadway Classification	Number of Lanes	Two-Way Traffic Volume (ADT)[b]		
		Service Level C	Service Level D	Service Level E
Local	2	2,500 – 2,799	2,800 – 3,099	3,100+
Collector (60' or 64')	2	9,900 – 11,199	11,200 – 12,499	12,500+
Industrial (45')	2	9,900 – 11,199	11,200 – 12,499	12,500+
Arterial [c]	2	14,400 – 16,199	16,200 – 17,1999	18,000+
Secondary Highway	4	16,900 – 19,399	19,400 – 21,199	22,000+
Modified Arterial (100')	4	26,200 – 29,599	29,600 – 32,999	33,000+
Arterial (120')	6	38,700 – 44,099	44,100 – 49,499	49,500+

[a] All capacity figures are based on optimum conditions and are intended as guidelines for planning purposes only.
[b] Maximum two-way average daily traffic (ADT) values are based on the 1999 Modified Highway Capacity Manual Level of Service Tables.
[c] Two-lane roadways designated as future arterials that conform to arterial design standards for vertical and horizontal alignment.

SOURCE: City of Rialto Traffic Impact Analysis Preparation Guide, Exhibit D; Pepper Avenue Specific Plan, Traffic Impact Analysis, Urban Crossroads, Inc., dated January 13, 2016.

It should be noted that these roadway capacities are "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, and vehicle mix (truck and bus traffic). Where the ADT-based roadway segment analysis indicates a deficiency, a review of the more detailed peak hour intersection analysis is also undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway performance. Roadway segment widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through travel lanes.

(d) Freeway Mainline Segment Analysis

The freeway system in the study area has been subdivided into segments defined by the freeway-to-arterial interchange locations. The freeway segments have been evaluated in the Traffic Impact Analysis based upon peak hour directional volumes. The freeway segment analysis is based on the methodology described in Chapter 11 of the HCM 2010 and performed using HCS 2010 software. The performance measure preferred by Caltrans to calculate LOS is density. Density is expressed in terms of passenger cars per mile per lane. **Table 4.H-9**, *Freeway Mainline LOS Thresholds*, illustrates the freeway segment LOS thresholds for each density range utilized for this analysis.

The SR-210 Freeway mainline volume data was obtained by SBTAM for the segments of the SR-210 Freeway located east and west of the future Pepper Avenue interchange. Truck data has been obtained from the Caltrans Traffic Data Branch website. The Caltrans 2013 Annual Average Daily Truck Traffic on the California State Highway System is utilized which presents a 6.9% truck percentage along the SR-210 freeway within the study area. For the purpose of this analysis,

actual vehicles (as opposed to passenger-car-equivalent volumes) and a parameter of 7% (rounded value) truck percentage have been utilized for the calculation of the basic freeway segment.

The freeway mainline analysis has been performed for Long Range (2035) Without and With Project conditions for freeway segment locations on both sides of the SR-210 Freeway and Pepper Avenue interchange.

TABLE 4.H-9
FREEWAY MAINLINE LOS THRESHOLDS

LOS	Description	Density Range (pc/mi/Ln)
A	Free-flow operations in which vehicles are relatively unimpeded in their ability to maneuver within the traffic stream. Effects of incidents are easily absorbed.	0.0 – 11.0
B	Relative free-flow operations in which vehicle maneuvers within the traffic stream are slightly restricted. Effects of minor incidents are easily absorbed.	11.1 – 18.0
C	Travel is still at relative free-flow speeds, but freedom to maneuver within the traffic stream is noticeably restricted. Minor incidents may be absorbed, but local deterioration in service will be substantial. Queues begin to form behind significant blockages.	18.1 – 26.0
D	Speeds begin to decline slightly and flows and densities begin to increase more quickly. Freedom to maneuver is noticeably limited. Minor incidents can be expected to create queuing as the traffic stream has little space to absorb disruptions.	26.1 – 35.0
E	Operation at capacity. Vehicles are closely spaced with little room to maneuver. Any disruption in the traffic stream can establish a disruption wave that propagates throughout the upstream traffic flow. Any incident can be expected to produce a serious disruption in traffic flow and extensive queuing.	35.1 – 45.0
F	Breakdown in vehicle flow. Demand exceeds capacity.	> 45.0

Note: pc/mi/ln = passenger cars per mile per lane.

SOURCE: HCM 2010, Chapter 11; Pepper Avenue Specific Plan, Traffic Impact Analysis, Urban Crossroads, Inc., dated January 13, 2016.

(e) Regional Transportation System

The analysis of Project traffic in relation to the regional transportation system is conducted according to the CMP. The regional transportation system analysis determines if Project-generated trips would exceed the CMP thresholds requiring additional analysis of CMP freeway or intersection locations. This Project does not meet the CMP analysis threshold so a CMP analysis is not required.

(f) Site Access and Circulation

A traffic signal progression analysis has been conducted for Pepper Avenue, between Highland Avenue and South Project Driveway under Long Range (2035) With Project conditions, with the identified intersection improvements, to evaluate vehicular queuing by considering the signal timing and physical spacing of intersections.

(g) Project Fair Share Calculation Methodology

In cases where the Traffic Impact Analysis identifies that the Project would have a significant cumulative impact to a roadway facility, and the recommended mitigation measure is a fair share monetary contribution, the following methodology was applied to determine the fair share contribution. A project's fair share contribution at an off-site study area intersection is determined based on the following equation, which is the ratio of Project traffic to new traffic, and new traffic is total future traffic subtracts existing baseline traffic:

Project Fair Share % = Project Traffic / (Long Range (2035) With Project Total Traffic – Existing 2014 Traffic)

The Project fair share contribution calculations are presented in Section 9.7 Fair Share Contribution of the Traffic Impact Analysis.

b. Thresholds of Significance

For purpose of this Draft EIR, the Project has utilized the checklist questions in Appendix G of the *CEQA Guidelines* as thresholds of significance to determine whether the Project would have a significant environmental impact regarding transportation and parking. The Project would result in a significant impact to transportation and parking if the Project would:

Threshold 1**:** 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 and freeways, pedestrian and bicycle paths, and mass transit (refer to Impact Statement TRAF-1);

Threshold 2**:** Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways (refer to Impact Statement TRAF-2);

Threshold 3**:** Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) (refer to Impact Statement TRAF-3);

Threshold 4**:** Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities (refer to Impact Statement TRAF-4);

Threshold 5**:** 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 (refer to Chapter 6, Other Mandatory CEQA Considerations, and the Initial Study contained in Appendix A. No impact would occur in this regard.); or

Threshold 6**:** Result in inadequate emergency access (refer to Chapter 6, Other Mandatory CEQA Considerations, and the Initial Study contained in Appendix A. A less than significant impact would occur in this regard.);

As discussed in the Initial Study, which is contained in Appendix A of this Draft EIR, and in Chapter 6.0, Subsection G, Effects Found Not to be Significant, of this Draft EIR, the Project would have no significant impact with respect to Threshold TRAF-5, result in change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. Also, impacts regarding emergency access (Threshold 5) were determined to be less than significant. As such, no further analysis of these topics in this Draft EIR is necessary.

(1) Construction Traffic

Construction-related traffic generally can cause adverse but not significant impacts because, while sometimes inconvenient, construction-related traffic effects are temporary. Nevertheless, a determination of significance is made on a case by case basis, considering the temporary traffic impacts, temporary loss of access, temporary loss of bus stops or rerouting of bus lines, and temporary loss of on-street parking. Based on these considerations, Project construction would have a significant impact on traffic and circulation if construction activities were to:

(1) Cause substantial delays and disruption of existing traffic flow;

(2) Require temporary relocation of existing bus stops to more than one-quarter mile from their existing stops;

(3) Result in impacts based on the operational thresholds at intersections during peak periods (refer to intersection threshold below); or

(4) Result in the substantial loss of on-street parking such that the parking needs of the project area would not be met.

(2) Congestion Management Program (CMP)

The regional transportation system analysis determines if Project-generated trips would exceed the CMP thresholds requiring additional analysis of CMP freeway or intersection locations. The CMP guidelines state that areas selected for analysis should be those that include the following locations:

- All CMP arterial monitoring intersections, including monitored on- or off-ramp intersections, where the proposed project would add 50 or more trips during either the AM or PM weekday peak hours of adjacent street traffic; and
- Mainline freeway morning locations where the project would add 150 or more trips, in either direction, during either the AM or PM weekday peak hours.

This Project does not meet the CMP analysis threshold so a CMP analysis is not required.

(3) Intersection Service Levels

City of Rialto

To determine whether the addition of Project traffic at a study intersection results in a significant impact under Threshold 1, the following thresholds of significance have been utilized for the Existing Plus Project scenario:

- A significant project-related impact occurs at a study intersection when the addition of project-related trips causes either:
  - The peak hour LOS to degrade from acceptable (i.e., LOS "D" or better) to unacceptable levels (i.e., LOS "E" or LOS "F"); or
  - If the addition of project-related traffic results in an increase to the "pre-project" peak hour delay by the values shown below.

CITY OF RIALTO LOS THRESHOLDS

Level of Service	Density Range (pc/mi/ln)[1]
A	By 10.0 seconds or more
B	By 10.0 seconds or more
C	By 8.0 seconds or more
D	By 5.0 seconds or more
E	By 2.0 seconds or more
F	By 1.0 second or more

Note: pc/mi/ln = passenger cars per mile per lane.

SOURCE: City of Rialto Public Works Department Traffic Impact Analysis Report Guidelines and Requirements (Exhibit F, LOS Standards); HCM 2010, Chapter 11; Pepper Avenue Specific Plan, Traffic Impact Analysis, Urban Crossroads, Inc., dated January 13, 2016.

The Project is responsible for fully mitigating its impacts to bring an intersection back to a LOS equal or better that it was without the Project (i.e., pre-project conditions).

Cumulative traffic impacts are created as a result of a combination of the proposed Project together with other future developments contributing to the overall traffic impacts requiring additional improvements to maintain acceptable LOS operations with or without the Project. The Project's contribution to a cumulatively considerable impact can be reduced to less than significant if the Project is required to implement or fund its fair share of improvements designed to alleviate the potential cumulative impact. If full funding of future cumulative improvements is not reasonably assured, a temporary unmitigated cumulative impact may occur until the needed improvement is fully funded and constructed.

Regarding roadway segment impacts, roadway segment capacities are approximate figures only, and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet traffic demand. For Long Range (2035) With Project conditions, roadway segments that are estimated to exceed the daily volume threshold values are further reviewed based on the more detailed peak hour intersection analysis, which explicitly account for factors that affect roadway during peak periods. Thus, peak hour intersection impacts are indirectly utilized to determine impacts on roadway segments.

(4) Freeway Mainlines

Caltrans

Caltrans does not have an established threshold of significance for the freeway mainline. The San Bernardino County CMP identifies a criteria of LOS "E" as acceptable. Therefore, a deficiency is identified if freeway LOS drops to LOS "F".

c. Project Design Features

(1) Project Construction

DF SERVICE-1: Construction Management Plan – A construction management plan shall be developed by the applicant or contractor of each future developments proposed within the Specific Plan area and approved by the City of Rialto Public Works Department prior to construction activities. The construction management plan shall include, at a minimum, the following:

- Identify the locations of the off-site truck staging and provide measures to ensure that trucks use the specified haul route, as applicable, and do not travel through nearby residential neighborhoods or schools;
- Schedule vehicle movements to ensure that there are no vehicles waiting off-site and impeding public traffic flow on surrounding streets;
- Establish requirements for loading/unloading and storage of materials on the Project Site;
- Coordinate with the City and emergency service providers to ensure adequate access is maintained to and around the Project Site; and
- During construction activities when construction worker parking cannot be accommodated on the Project Site, a Construction Worker Parking Plan shall be prepared which identifies alternate parking location(s) for construction workers and the method of transportation to and from the Project Site (if beyond walking distance) for approval by the City. The Construction Worker Parking Plan shall prohibit construction worker parking on residential streets and prohibit on-street parking, except as approved by the City.

(2) Project Site Access

DF TRAF-1: Pepper Avenue / Northerly Right-In/Right-Out (RIRO) Driveway – Install stop sign control on the EB approach, design the intersection to restrict left-in access to the Project driveway and left-out access from the Project driveway, and construct the intersection with the following geometrics:

- NB Approach: Provide two through lanes.
- SB Approach: Provide one through lane and one shared through-right turn lane.
- EB Approach: Provide a right turn lane.

DF TRAF-2: Pepper Avenue / Main Driveway (intersection #23) – Install traffic signal control and construct the intersection with the following geometrics:

- NB Approach: Provide one left turn lane, one through lane, and one shared through right lane.
- SB Approach: Provide two left turn lanes, one through lane, and one shared through right lane.
- EB Approach: Provide one left turn lane and one shared through-right lane.
- WB Approach: Provide one left turn lane, one through lane, and one right turn lane.

DF TRAF-3: Pepper Avenue / Southerly RIRO Driveway – Install stop sign control on the EB approach, design the intersection to restrict left-in access to the Project driveway and left-out access from the Project driveway, and construct the intersection with the following geometrics:

- NB Approach: Provide two through lanes.
- SB Approach: Provide one through lane and one shared through-right turn lane.
- EB Approach: Provide a right turn lane.

DF TRAF-4: Pepper Avenue / South Driveway (intersection #24) – At complete build-out, or as otherwise determined by traffic needs, install traffic signal control and construct the intersection with the following geometrics:

- NB Approach: Provide one through lane and one shared through-right lane.
- SB Approach: Provide one left turn lane and two through lanes.
- WB Approach: Provide one left turn lane, and one right turn lane.

d. Project Impacts

Threshold TRAF-1: A significant impact would occur if the Project conflicts with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

Impact Statement TRAF-1: With implementation of the prescribed mitigation measure and the Project's applicable design features, potentially significant traffic impacts would be reduced to a less than significant level. Thus, implementation of the Project under Existing Plus Project, Opening Year (2017), and Long Range (2035) conditions would not substantially 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 and freeways, pedestrian and bicycle paths, and mass transit.

(1) Construction

As described in Chapter 2, *Project Description,* the Project Site would be developed in one or more phases, with the earliest construction beginning in late 2016. No uses would be opened prior to 2017 (Opening Year). The build-out year would be 2035. The number of construction workers and construction equipment would vary throughout the construction process in order to maintain a reasonable schedule. A conservative assumption is made that each employee would drive to and from the Project Site alone each day. The construction workforce would likely be generated from all parts of the San Bernardino County region and is assumed to arrive and depart from all directions. Construction traffic generally occurs prior to the peak period (i.e., 7:00 AM – 9:00 PM and 4:00 PM – 6:00 pm). Consistent with the typical construction work day, most employees would arrive to the site prior to the AM peak traffic hour for daily meetings and planning purposes (noting construction activities would be limited by the Rialto Municipal Code Chapter 9.50, Noise Control, Section 9.50.070, Disturbances from construction activity, from October 1st through April 30th to the hours of 7:00 AM to 5:30 PM Monday through Friday and 8:00 AM to 5:00 PM on Saturdays with no construction to occur on Sundays; and from May 1st through September 30th to the hours of 6:00 AM to 7:00 PM Monday through Friday and 8:00 AM to 5:00 PM on Saturdays with no construction to occur on Sundays). Most workers would be expected to leave the site prior to the PM peak traffic hour, although some could leave during the PM peak traffic hour. Regardless of the time during the PM hour, the construction employee trips would be short-term and would not substantially affect the performance of the circulation system during peak traffic periods. Further, the number of employee construction trips would be far less than the Project, which is described below. Also, parking for employees and non-employee vehicles can be accommodated within the construction area of the Project Site and not on public streets.

Heavy equipment to be utilized on-site during construction include, but is not limited to: flat beds, dozers, scrapers, graders, track hoes, dump trucks, forklifts, cranes, cement trucks, pavers, rollers, water trucks, rolling container trucks and bobcats. Heavy equipment would be delivered and removed from the Project Site throughout the construction phase. As most heavy equipment is typically not an authorized vehicle to be driven on a public roadway, most of the equipment would be delivered and removed from the Site via large flatbed trucks. It is anticipated that delivery of heavy equipment would not occur on a daily basis, but rather periodically throughout the construction based on need. As such, traffic impacts related to the delivery of heavy equipment and materials would be less than significant.

Project-related construction traffic and activities including worker travel and the delivery of construction materials and vehicles could potentially affect school traffic, pedestrian routes, or transportation safety in the Project area. Most notably, Frisbie Middle School is located approximately 0.3 miles southwest of the Project Site. However, construction vehicles traveling to and from the Project Site would typically avoid school routes and generally travel along SR-210 to Pepper Avenue to access the Project Site. The SR-210 Freeway and Pepper Avenue interchange project is currently under construction and is anticipated to be completed prior to opening of future development within the Project Site. To ensure that construction-related traffic does not adversely impact pedestrian safety, including school and non-school routes, Design Feature DF Service-1 would be implemented by the Project. Implementation of the required design feature would ensure that construction traffic-related impacts are less than significant by requiring interim construction period traffic management to allow for construction traffic to blend with existing pedestrian and vehicular traffic patterns, including school-related traffic, with minimal disruption thereby not creating adverse traffic impacts.

(2) Operation

(a) Project Trip Generation

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development.

Trip generation rates used to estimate Project traffic are shown in **Table 4.H-10**, *Project Trip Generation Rates* and a summary of the Project's trip generation is shown in **Table 4.H-11**, *Project Trip Generation Summary*. The trip generation rates are based upon data collected by the Institute of Transportation Engineers (ITE) for retail shopping center (ITE Land Use Code 820), business park (ITE Land Use Code 770), and multi-family residential (ITE Land Use Code 220) in the Trip Generation Manual, 9th Edition, 2012. Two project conditions are shown: (1) Project Future Baseline Without Residential Overlay; and (2) With Residential Overlay.

TABLE 4.H-10
PROJECT TRIP GENERATION RATES[A]

Land Use	ITE Code	Quantityb	A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak In	P.M. Peak Out	P.M. Peak Total	Daily
Retail Shopping Center	820	462.00 TSF	0.60	0.36	0.96	1.78	1.93	3.71	42.70
Business Park	770	125.00 TSF	1.19	0.21	1.40	0.33	0.93	1.26	12.44
Multi-Family Residential	220	275 DU	0.10	0.41	0.51	0.40	0.22	0.62	6.65

[a] Trip Generation Source: Institute of Transportation Engineers (ITE) Trip Generation Manual 9th Edition (2012).
[b] TSF = thousand square feet; DU = dwelling unit.

SOURCE: City of Rialto Traffic Impact Analysis Preparation Guide, Exhibit D; Pepper Avenue Specific Plan, Traffic Impact Analysis, Urban Crossroads, Inc., dated January 13, 2016.

TABLE 4.H-11
PROJECT TRIP GENERATION SUMMARY

Land Use	ITE Code	Quantity1	A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak In	P.M. Peak Out	P.M. Peak Total	Daily
Trip Generation Total (Project Future Baseline without Residential Overlay)									
Retail Shopping Center	820	462.00 TSF	277	166	443	822	892	1,714	19,727
Business Park	770	125.00 TSF	149	26	175	41	116	157	1,555
Commercial Retail Pass-By/Local Interaction (10%)			-	-	-	(86)	(85)	(171)	(1,973)
TOTAL EXTERNAL TRIPS			**426**	**192**	**618**	777	923	1,700	19,309
Trip Generation Total with Residential Overlay									
Retail Shopping Center	820	346.00 TSF	208	125	333	616	668	1,284	14,774
Business Park	770	125.00 TSF	149	26	175	41	116	157	1,555
Multi-Family Residential Overlay	220	275.00 DU	28	113	141	110	61	171	1,829
Commercial Retail Pass-By/Local Interaction (10%)			-	-	-	(62)	(67)	(128)	(1,477)
TOTAL EXTERNAL TRIPS with RESIDENTIAL OVERLAY			385	264	649	705	778	1,484	16,681
Changes in Trip Generation with Residential Overlay									
Project Future Baseline Without Residential Overlay Scenario			426	192	618	777	923	1,700	19,309
With Residential Overlay Scenario			385	264	649	705	778	1,484	16,681
Delta			-41	72	31	-72	-145	-216	-2,628

[a] TSF = thousand square feet; DU = dwelling unit.

SOURCE: City of Rialto Traffic Impact Analysis Preparation Guide, Exhibit D; Pepper Avenue Specific Plan, Traffic Impact Analysis, Urban Crossroads, Inc., dated January 13, 2016.

As shown on Table 4.H-11, the Project without Residential Overlay is anticipated to generate a total of approximately 19,309 trip-ends per day with 618 vehicles per hour during the AM peak hour and 1,700 vehicles per hour during the PM peak hour. Also shown on Table 4.H-11, the Project with Residential Overlay is anticipated to generate a total of approximately 16,681 trip-ends per day with 649 vehicles per hour during the AM peak hour and 1,484 vehicles per hour during the PM peak hour. While there would be 31 more trips during the AM peak hour under the Project without Residential Overlay scenario (a 5% increase), there would be 216 fewer trips during the PM peak hour (a 13% decrease) compared to the Without Residential Overlay scenario. Also, there would be 2,628 fewer daily trips under the With Residential Overlay scenario (a 13% decrease). Despite the small increase in trips during the AM peak under the With Residential Overlay scenario, the Without Residential Overlay scenario with greater PM peak hour and daily trips represents the more conservative or worse-case traffic scenario. Accordingly, the Without Residential Overlay scenario is evaluated throughout this traffic analysis.

(b) Project Trip Distribution and Assignment

Trip distribution is the process of identifying the probable destinations, directions or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered, to identify the route where the Project traffic would distribute. The Project trip distribution was developed based on anticipated travel patterns to and from the Project Site for both passenger cars and truck traffic.

The trip distribution pattern is heavily influenced by the geographical location of the site, the location of surrounding uses, and the proximity to the regional freeway system. Exhibit 4-1, Project Trip Distribution, of the Traffic Impact Analysis, illustrates the Project trip distribution patterns. Project traffic is distributed northbound on Pepper Avenue towards the SR-210 Freeway and Highland Avenue (75 percent) and southbound on Pepper Avenue towards Baseline Road and beyond (25 percent).

The traffic reducing potential of public transit, walking or bicycling have not been considered in this analysis. Essentially, the traffic projections are “conservative” in that these alternative travel modes might be able to reduce the forecasted traffic volumes.

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project ADT volumes are shown on Exhibit 4-2, Project Average Daily Traffic (ADT), of the Traffic Impact Analysis. Project weekday AM and PM peak hour volumes are shown on Exhibit 4-3, Project Only AM Peak Hour Intersection Volumes and Exhibit 4-4, Project Only PM Peak Hour Intersection Volumes, of the Traffic Impact Analysis, respectively.

(c) Background Traffic

Future traffic volume forecasts have been developed SBTAM, in combination with other recent studies. Opening year volumes have been interpolated from 2035 conditions, then compared with known nearby forecasts.

The adopted SCAG 2012 RTP growth forecasts for the City of Rialto identifies projected growth in population of 98,900 in 2008 to 125,200 in 2035, or a 26.7 percent increase over the 27-year period. The change in population equates to roughly a 0.88 percent growth rate compounded annually. Similarly, growth over the same 27-year period in households is projected to increase by 38.2 percent, or 1.21 annual growth rate. Finally, growth in employment over the same 27-year period is projected to increase by 43.2 percent, or a 1.01 annual growth rate. As such, the analysis in the Traffic Impact Analysis is conservative, and extremely unlikely to understate potential impacts.

(d) Cumulative Development Traffic

City of Rialto traffic impact analysis guidelines require that other reasonably foreseeable development projects which are either approved or being processed concurrently in the study area also be included as part of a cumulative analysis scenario. A cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the City of Rialto. Table 3-1, List of Related Projects, and Figure 3-1, Related Projects Map, in Chapter 3 of this EIR illustrate the related projects and their proposed uses.

(e) Existing Plus Project Traffic Conditions

In general, the lane configurations and traffic controls assumed to be in place for Existing Plus Project conditions are consistent with those shown on Exhibit 3-1, Existing Number of Through Lanes and Intersection Controls, of the Traffic Impact Analysis. North of the Project, the SR-210 interchange ramps at Pepper Avenue are included in the Existing Plus Project analysis. This interchange project is fully funded from Measure I half-cent sales tax collected in San Bernardino County for transportation improvements and is anticipated to be completed prior to opening of the Project. The Project driveways are also assumed to be in place for Existing Plus Project conditions.

Existing Plus Project peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented above. The intersection analysis results are summarized in **Table 4.H-12**, *Intersection Analysis for Existing Plus Project Conditions*. Based on a comparison of Existing Plus Project to Existing (2014) traffic conditions, the Project is not anticipated to cause any intersection to change from acceptable LOS (i.e., LOS "D") to unacceptable (i.e., LOS "E" or "F") during the peak hours. The intersection of Eucalyptus Avenue at Baseline Road is deficient both in Existing and Existing Plus Project condition.

TABLE 4.H-12
INTERSECTION ANALYSIS FOR EXISTING PLUS PROJECT CONDITIONS

#	Intersection	Traffic Control[c]	Intersection Approach Lanes[a] North-bound L T R	South-bound L T R	East-bound L T R	West-bound L T R	Delay[b] (Secs) AM	Delay[b] (Secs) PM	Level of Service[b] AM	Level of Service[b] PM
1	Riverside Av. / SR-210 WB Ramps	TS	2 2 0	0 4 1	0 0 0	1 1! 1	24.9	18.5	C	B
2	Riverside Av. / SR-210 EB Ramps	TS	0 3.5 1.5	2 2 0	1 0.5 1.5	0 0 0	11.4	10.5	B	B
3	Riverside Av. / Easton St.	TS	1 3 0	2 2 1	1 1 0	1 1 1	49.5	32.4	D	C
4	Highland Av. / Commercial Dwy.	CSS	1 2 0	0 2 0	0 1! 0	0 0 0	11.1	11.6	B	B
5	Highland Av. - Easton St. / Easton St.	TS	1 2 0	1 2 0	0 1! 0	1 1 0	18.4	12.4	B	B
6	Eucalyptus Av. / Walnut Av.	AWS	0.5 0.5 d	0.5 0.5 d	0 1! 0	0 1! 0	8.6	8.3	A	A
7	Eucalyptus Av. / Winchester Dr.	CSS	0 1 0	0 1 0	0 0 0	0 1! 0	11.2	11.0	B	B
8	Eucalyptus Av. / Baseline Rd.									
	- Without Improvements	TS	0.5 0.5 d	0.5 0.5 d	1 2 0	1 2 0	**>80**	26.4	**F**	C
	- With Improvements	TS	**1** 1 0	**1** 1 0	1 2 0	1 2 0	15.7	14.0	B	B
9	Pepper Av. / Highland Av.[d]	CSS	***1*** ***1*** ***1***	0 1! 0	1 2 0	1 2 0	13.0	15.0	B	C
10	Pepper Av. / SR-210 WB Ramps[d]	***TS***	***1*** ***2*** 0	0 ***2*** 0	0 0 0	***1*** 0 ***1***	26.5	30.2	C	C
11	Pepper Av. / SR-210 EB Ramps[d]	***TS***	0 ***2*** 0	***1*** ***2*** 0	***1*** 0 ***1***	0 0 0	11.9	6.9	B	A
12	Pepper Av. / Winchester Dr.	CSS	0.5 0.5 d	0.5 0.5 d	0 1! 0	0 1! 0	17.4	13.0	C	B
13	Pepper Av. / Mariposa Dr.	CSS	0.5 0.5 d	0.5 0.5 d	0 1! 0	0 1! 0	16.6	13.2	C	B
14	Pepper Av. / Baseline Rd.	TS	1 2 0	1 2 0	1 2 0	1 2 0	13.9	15.6	B	B
15	Pepper Av. / Etiwanda Av.	AWS	1 1 0	1 2 0	0 1! 0	0 1! 0	31.9	18.5	D	C
16	Pepper Av. / Foothill Bl.	TS	1 2 0	1 2 0	1 2 1	1 2 d	21.8	19.9	C	B
17	Meridian Av. / Baseline Rd.	TS	1 0 1	0 0 0	0 2 0	1 2 0	9.6	9.1	A	A
18	Macy St. / Highland Av.	TS	0 1! 0	0.5 0.5 1	1 2 0	1 2 0	50.2	23.0	D	C
19	State St. / Highland Av.	TS	1 3 1	1 2 1	1 2 1	2 2 d	30.0	24.8	C	C
20	State St. / SR-210 WB Ramps	TS	2 2 0	0 1.5 1.5	0 0 0	1 1! 1	10.5	10.8	B	B
21	State St. / SR-210 EB Ramps	TS	2 2 0	1 1.5 1.5	1 1! 1	1 1 0	29.4	29.2	C	C
22	Pepper Av. / Rialto Av.	TS	1 2 0	1 2 0	1 2 0	1 2 0	24.9	23.2	C	C
23	Pepper Av. / Main Dwy.	**TS**	**1** **2** 0	**2** **2** 0	**1** **1** 0	**1** **1** **1**	19.3	21.1	B	C
24	Pepper Av. / South Dwy.	**CSS**	0 **2** 0	**1** **2** 0	0 0 0	**1** 0 **1**	11.5	21.4	B	C

[a] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 1! = Shared Left-Through-Right turn lane; ***1*** = Planned Pepper Av./SR-210 Interchange; **1** = Improvement

[b] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. (or movements sharing a single lane) are shown. **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS). Delay and level of service calculated using Syncrho 8.0 analysis software.

[c] TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop.

[d] Source: State Route 210/Pepper Avenue Interchange Traffic Impact Analysis, prepared by IBI Group (March 2012)

SOURCE: Pepper Avenue Specific Plan, Traffic Impact Analysis, Urban Crossroads, Inc., dated January 13, 2016.

Traffic Signal Warrants Analysis

For Existing Plus Project traffic conditions, the intersection of Pepper Avenue/Main Driveway (Intersection #23) is anticipated to meet traffic signal warrant. Per DF TRAF-2, a traffic signal would be installed at this intersection.

Existing Plus Project Impacts and Recommended Improvements

As part of the Project, roadway improvements identified within DF TRAF-1 to DF TRAF-4 would be implemented in conjunction with adjacent Project development activity or as needed for Project access purposes.

The following off-site improvements are anticipated to reduce peak hour delay and improve the deficient LOS grade to an acceptable LOS "D" or better; refer to Exhibit 5-4, Existing Plus Project Recommended Improvements, of the Traffic Impact Analysis.

Eucalyptus Avenue at Baseline Road (Intersection #8):

- Northbound Approach: Provide separate left turn lane, in addition to the exiting through lane.
- Southbound Approach: Provide separate left turn lane, in addition to the existing through lane.

(f) Opening Year (2017) Traffic Conditions

In general, the lane configurations and traffic controls assumed to be in place for Opening Year (2017) conditions are consistent with those shown on Exhibit 3-1, Existing Number of Through Lanes and Intersection Controls, of the Traffic Impact Analysis. North of the Project, the SR-210 interchange at Pepper Avenue is included in the 2017 analysis for Without and With Project conditions. The Project driveways are also assumed to be in place for 2017 With Project conditions.

Opening Year (2017) Without Project Traffic Conditions

LOS calculations were conducted for the study intersections to evaluate their operations under Opening Year (2017) Without Project conditions. As shown in **Table 4.H-13**, *Intersection Analysis for Opening Year (2017) Without Project Conditions*, the following three study area intersections are anticipated to operate at service levels which do not meet the City level of service criteria for cumulative conditions without the Project:

- Riverside Avenue/Easton Street (Intersection #3) – LOS E (AM)
- Eucalyptus Avenue/Baseline Road (Intersection #8) - LOS F (AM)
- Pepper Avenue/Etiwanda Avenue (Intersection #15) - LOS E (AM)

TABLE 4.H-13
INTERSECTION ANALYSIS FOR OPENING YEAR (2017) WITHOUT PROJECT CONDITIONS

			Intersection Approach Lanes[a]																	
			North-bound			South-bound			East-bound			West-bound			Delay[b] (Secs)		Level of Service [b]	
#	Intersection	Traffic Control[c]	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Riverside Av. / SR-210 WB Ramps	TS	2	2	0	0	4	1	0	0	0	1	1!	1	24.6	18.5	C	B
2	Riverside Av. / SR-210 EB Ramps	TS	0	3.5	1.5	2	2	0	1	0.5	1.5	0	0	0	12.2	11.2	B	B
3	Riverside Av. / Easton St.																	
	- Without Improvements	TS	1	3	0	2	2	1	1	1	0	1	1	1	**56.2**	44.5	**E**	D
	- With Improvements	TS	1	3	0	2	2	1	1	1	0	1	1	**1>**	34.0	34.7	C	C
4	Highland Av. / Commercial Dwy.	CSS	1	2	0	0	2	0	0	1!	0	0	0	0	11.0	11.4	B	B
5	Highland Av. - Easton St. / Easton St.	TS	1	2	0	1	2	0	0	1!	0	1	1	0	19.6	12.8	B	B
6	Eucalyptus Av. / Walnut Av.	AWS	0.5	0.5	d	0.5	0.5	d	0	1!	0	0	1!	0	8.6	8.1	A	A
7	Eucalyptus Av. / Winchester Dr.	CSS	0	1	0	0	1	0	0	0	0	0	1!	0	11.4	10.7	B	B
8	Eucalyptus Av. / Baseline Rd.																	
	- Without Improvements	TS	0.5	0.5	d	0.5	0.5	d	1	2	0	1	2	0	**>80**	49.1	**F**	D
	- With Improvements	TS	**1**	1	0	**1**	1	0	1	2	0	1	2	0	15.9	9.2	B	A
9	Pepper Av. / Highland Av.[d]	***TS***	***1***	***1***	***1***	0	1!	0	1	2	0	1	2	0	32.2	33.0	C	C
10	Pepper Av. / SR-210 WB Ramps[d]	***TS***	***1***	***2***	0	0	***2***	0	0	0	0	***1***	0	***1***	25.1	26.0	C	C
11	Pepper Av. / SR-210 EB Ramps[d]	***TS***	0	***2***	0	***1***	***2***	0	***1***	0	***1***	0	0	0	16.4	18.3	B	B
12	Pepper Av. / Winchester Dr.	CSS	0.5	0.5	d	0.5	0.5	d	0	1!	0	0	1!	0	20.7	11.8	C	B
13	Pepper Av. / Mariposa Dr.	CSS	0.5	0.5	d	0.5	0.5	d	0	1!	0	0	1!	0	19.1	12.0	C	B
14	Pepper Av. / Baseline Rd.[e]	TS	1	2	0	1	2	0	1	2	0	1	2	0	18.6	15.5	B	B
15	Pepper Av. / Etiwanda Av.																	
	- Without Improvements	AWS	1	1	0	1	2	0	0	1!	0	0	1!	0	**35.6**	17.7	**E**	C
	- With Improvements	**TS**	1	1	0	1	2	0	0	1!	0	0	1!	0	17.7	16.8	B	B
16	Pepper Av. / Foothill Bl.	TS	1	2	0	1	2	0	1	2	1	1	2	d	31.3	25.9	C	C
17	Meridian Av. / Baseline Rd.	TS	1	0	1	0	0	0	0	2	0	1	2	0	10.2	10.4	B	B
18	Macy St. / Highland Av.	TS	0	1!	0	0.5	0.5	1	1	2	0	1	2	0	53.0	22.8	D	C
19	State St. / Highland Av.	TS	1	3	1	1	2	1	1	2	1	2	2	d	30.6	28.0	C	C
20	State St. / SR-210 WB Ramps	TS	2	2	0	0	1.5	1.5	0	0	0	1	1!	1	10.2	10.5	B	B
21	State St. / SR-210 EB Ramps	TS	2	2	0	1	1.5	1.5	1	1!	1	1	1	0	33.2	32.5	C	C
22	Pepper Av. / Rialto Av.	TS	1	2	0	1	2	0	1	2	0	1	2	0	28.0	26.3	C	C
23	Pepper Av. / Main Dwy.		Future Intersection												--	--	--	--
24	Pepper Av. / South Dwy.		Future Intersection												--	--	--	--

#	Intersection	Traffic Control[c]	Intersection Approach Lanes[a] North-bound L T R	South-bound L T R	East-bound L T R	West-bound L T R	Delay[b] (Secs) AM	Delay[b] (Secs) PM	Level of Service[b] AM	Level of Service[b] PM

[a] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 1! = Shared Left-Through-Right turn lane; ***1*** = Planned Pepper Av./SR-210 Interchange; **1** = Improvement

[b] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. (or movements sharing a single lane) are shown. **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS). Delay and level of service calculated using Syncrho 8.0 analysis software.

[c] TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop.

[d] State Route 210/Pepper Avenue Interchange Traffic Impact Analysis, prepared by IBI Group (March 2012)

[e] Per City of Rialto, a traffic signal upgrade at Pepper Avenue/Baselines (intersection #14) include modifying the east/west phasing from permissive to protected phase and north/south phasing from permitted to protected/permissive phase.

SOURCE: Pepper Avenue Specific Plan, Traffic Impact Analysis, Urban Crossroads, Inc., dated January 13, 2016.

Opening Year (2017) With Project Traffic Conditions

For Opening Year (2017) With Project Conditions, **Table 4.H-14**, *Intersection Analysis for Opening Year (2017) With Project Conditions*, indicates the same intersections are anticipated to experience deficient operations, in addition to the deficient intersections previously identified under Opening Year (2017) Without Project traffic conditions.

Addition of Project traffic to the deficient intersections identified under Opening Year (2017) Without Project traffic conditions would not result in any additional deficiencies. However, the Project's contribution to the Without Project deficiencies is considered cumulatively considerable.

TABLE 4.H-14
INTERSECTION ANALYSIS FOR OPENING YEAR (2017) WITH PROJECT CONDITIONS

			Intersection Approach Lanes[a]																					
			North-bound			South-bound			East-bound			West-bound			Delay[b] (Secs)		Level of Service[b]	
#	Intersection	Traffic Control[c]	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Riverside Av. / SR-210 WB Ramps	TS	2	2	0	0	4	1	0	0	0	1	1!	1	24.7	19.0	C	B
2	Riverside Av. / SR-210 EB Ramps	TS	0	3.5	1.5	2	2	0	1	0.5	1.5	0	0	0	12.3	16.4	B	B
3	Riverside Av. / Easton St.																	
	- Without Improvements	TS	1	3	0	2	2	1	1	1	0	1	1	1	**56.5**	45.8	**E**	D
	- With Improvements	TS	1	3	0	2	2	1	1	1	0	1	1	**1>**	34.1	35.5	C	D
4	Highland Av. / Commercial Dwy.	CSS	1	2	0	0	2	0	0	1!	0	0	0	0	11.5	12.3	B	B
5	Highland Av. - Easton St. / Easton St.	TS	1	2	0	1	2	0	0	1!	0	1	1	0	19.4	12.6	B	B
6	Eucalyptus Av. / Walnut Av.	AWS	0.5	0.5	d	0.5	0.5	d	0	1!	0	0	1!	0	8.8	8.5	A	A
7	Eucalyptus Av. / Winchester Dr.	CSS	0	1	0	0	1	0	0	0	0	0	1!	0	11.8	11.4	B	B
8	Eucalyptus Av. / Baseline Rd.																	
	- Without Improvements	TS	0.5	0.5	d	0.5	0.5	d	1	2	0	1	2	0	**>80**	47.4	**F**	D
	- With Improvements	TS	**1**	1	0	**1**	1	0	1	2	0	1	2	0	15.9	9.0	B	A
9	Pepper Av. / Highland Av.[d]	***TS***	***1***	***1***	***1***	0	1!	0	1	2	0	1	2	0	31.3	32.2	C	C
10	Pepper Av. / SR-210 WB Ramps[d]	***TS***	***1***	***2***	0	0	***2***	0	0	0	0	***1***	0	***1***	26.7	31.6	C	C
11	Pepper Av. / SR-210 EB Ramps[d]	***TS***	0	***2***	0	***1***	***2***	0	***1***	0	***1***	0	0	0	12.2	11.9	B	B
12	Pepper Av. / Winchester Dr.	CSS	0.5	0.5	d	0.5	0.5	d	0	1!	0	0	1!	0	31.0	24.4	D	C
13	Pepper Av. / Mariposa Dr.	CSS	0.5	0.5	d	0.5	0.5	d	0	1!	0	0	1!	0	24.3	18.1	C	C
14	Pepper Av. / Baseline Rd.[e]	TS	1	2	0	1	2	0	1	2	0	1	2	0	19.5	18.6	B	B
15	Pepper Av. / Etiwanda Av.																	
	- Without Improvements	AWS	1	1	0	1	2	0	0	1!	0	0	1!	0	**37.5**	30.6	**E**	D
	- With Improvements	**TS**	1	1	0	1	2	0	0	1!	0	0	1!	0	18.1	16.9	B	B
16	Pepper Av. / Foothill Bl.	TS	1	2	0	1	2	0	1	2	1	1	2	d	30.5	26.8	C	C
17	Meridian Av. / Baseline Rd.	TS	1	0	1	0	0	0	0	2	0	1	2	0	10.3	10.4	B	B
18	Macy St. / Highland Av.	TS	0	1!	0	0.5	0.5	1	1	2	0	1	2	0	53.8	13.9	D	B
19	State St. / Highland Av.	TS	1	3	1	1	2	1	1	2	1	2	2	d	30.5	38.2	C	D
20	State St. / SR-210 WB Ramps	TS	2	2	0	0	1.5	1.5	0	0	0	1	1!	1	13.2	14.3	B	B
21	State St. / SR-210 EB Ramps	TS	2	2	0	1	1.5	1.5	1	1!	1	1	1	0	33.2	32.4	C	C
22	Pepper Av. / Rialto Av.	TS	1	2	0	1	2	0	1	2	0	1	2	0	28.1	25.4	C	C
23	Pepper Av. / Main Dwy.	**TS**	**1**	**2**	0	**2**	**2**	0	**1**	**1**	0	**1**	**1**	**1**	14.7	24.4	B	C
24	Pepper Av. / South Dwy.	**TS**	0	**2**	0	**1**	**2**	0	0	0	0	**1**	0	**1**	12.8	21.3	B	C

#	Intersection	Traffic Control[c]	Intersection Approach Lanes[a] North-bound L T R	South-bound L T R	East-bound L T R	West-bound L T R	Delay[b] (Secs) AM	Delay[b] (Secs) PM	Level of Service[b] AM	Level of Service[b] PM

[a] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 1! = Shared Left-Through-Right turn lane; ***1*** = Planned Pepper Av./SR-210 Interchange; **1** = Improvement

[b] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. (or movements sharing a single lane) are shown. **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS). Delay and level of service calculated using Syncrho 8.0 analysis software.

[c] TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop.

[d] State Route 210/Pepper Avenue Interchange Traffic Impact Analysis, prepared by IBI Group (March 2012)

[e] Per City of Rialto, a traffic signal upgrade at Pepper Avenue/Baselines (intersection #14) include modifying the east/west phasing from permissive to protected phase and north/south phasing from permitted to protected/permissive phase.

SOURCE: Pepper Avenue Specific Plan, Traffic Impact Analysis, Urban Crossroads, Inc., dated January 13, 2016.

Traffic Signal Warrants Analysis

For Opening Year (2017) Without Project conditions, the intersection of Pepper Avenue/Highland Avenue (Intersection #9) is anticipated to meet traffic signal warrants.

For Opening Year (2017) With Project conditions, the intersection of Pepper Avenue/South Driveway (intersection #24) is anticipated to meet traffic signal warrants, in addition to the intersections identified under Existing Plus Project conditions and 2017 Without Project conditions.

Opening Year (2017) Impacts and Recommended Improvements

As part of the Project, roadway improvements identified within DF TRAF-1 to DF TRAF-4 would be implemented in conjunction with adjacent Project development activity or as needed for Project access purposes.

Based on the City of Rialto's significance criteria, there were no study area intersections that were found to be directly impacted by the Project for 2017 traffic conditions. However, the Project would contribute to existing deficiencies, thus resulting in a cumulative impact. Improvement strategies have been recommended at intersections that have been identified as cumulatively impacted in an effort to reduce each location's peak hour delay and improve the associated LOS grade to LOS "D" or better.

Improvement strategies identified in Table 4.H-14 have been recommended at the following intersections that have been identified as cumulatively impacted to reduce each location's peak hour delay to less than significant. It should be noted that the improvements shown in Table 4.H-14 are consistent with those improvements for Opening Year (2017) Without Project conditions (Table 4.H-13).

Riverside Avenue/Easton Street (Intersection #3):

- Participate in the signal modification to provide separate right turn overlap signal phasing for the existing westbound right turn lane.

Eucalyptus Avenue/Baseline Road (Intersection #8):

- Northbound Approach: Provides separate left turn lane, in addition to the existing through lane.
- Southbound Approach: Provide separate left turn lane, in addition to the existing through lane.

Pepper Avenue/Etiwanda Avenue (Intersection #15):

- Participate in construction of a traffic signal.

Per Mitigation Measure TRAF-1, future Project applicant(s) shall participate in the City of Rialto DIF Program by paying applicable fees, supplemented by participation in additional fair share intersection improvement costs as needed. Payment of fees to these fee programs may be considered as mitigation for the Project's proportionate share of cumulative impacts. If the City finds that the payment of DIF fees alone do not adequately address the Project's proportionate share, a fair share contribution may be imposed in order to mitigate the Project's share of cumulative impacts.

(g) Long Range (2035) Traffic Conditions

In general, the lane configurations and traffic controls assumed to be in place for Long Range (2035) conditions are consistent with those shown on Exhibit 3-1, Existing Number of Through Lanes and Intersection Controls, of the Traffic Impact Analysis. North of the Project, the SR-210 interchange at Pepper Avenue is included in the 2035 analysis for Without and With Project conditions. The Project driveways are also assumed to be in place for 2017 With Project conditions. Pepper Avenue is planned as a Major Arterial, which the City of Rialto General Plan indicates has at least two lanes of travel in each direction, left turn lanes at intersections, and parking lanes. The Long Range analysis includes two lanes in each direction (four lanes total) and a wide median on Pepper Avenue.

Long Range (2035) Without Project Traffic Conditions (Intersections)

LOS calculations were conducted for the study intersections to evaluate their operations under Long Range (2035) Without Project conditions. As shown in **Table 4.H-15**, *Intersection Analysis for Long Range (2035) Without Project Conditions*, the following four study area intersections are anticipated to operate at service levels which do not meet the City level of service criteria for cumulative conditions without the Project, in addition to the deficient intersections previously identified under Opening Year (2017) Without Project conditions:

- Pepper Avenue/Highland Avenue (Intersection #9) - LOS F (AM/PM)
- Pepper Avenue/Winchester Drive (Intersection #12) - LOS F (AM/PM)
- Pepper Avenue/Mariposa Drive (Intersection #13) - LOS F (AM/PM)
- Pepper Avenue/Foothill Boulevard (Intersection #16) - LOS E (AM)/LOS F (PM)

TABLE 4.H-15
INTERSECTION ANALYSIS FOR LONG RANGE (2035) WITHOUT PROJECT CONDITIONS

#	Intersection	Traffic Control[c]	Intersection Approach Lanes[a] North-bound L T R	South-bound L T R	East-bound L T R	West-bound L T R	Delay[b] (Secs) AM	Delay[b] (Secs) PM	Level of Service[b] AM	Level of Service[b] PM
1	Riverside Av. / SR-210 WB Ramps	TS	2 2 0	0 4 1	0 0 0	1 1! 1	29.5	28.4	C	C
2	Riverside Av. / SR-210 EB Ramps	TS	0 3.5 1.5	2 2 0	1 0.5 1.5	0 0 0	27.2	18.5	C	B
3	Riverside Av. / Easton St.									
	- Without Improvements	TS	1 3 0	2 2 1	1 1 0	1 1 1	**77.1**	**58.3**	**E**	**E**
	- With Improvements	TS	1 3 0	2 2 1	1 1 0	1 1 **1>**	54.6	53.6	D	D
4	Highland Av. / Commercial Dwy.	CSS	1 2 0	0 2 0	0 1! 0	0 0 0	13.1	24.7	B	C
5	Highland Av. - Easton St. / Easton St.	TS	1 2 0	1 2 0	0 1! 0	1 1 0	17.7	12.8	B	B
6	Eucalyptus Av. / Walnut Av.	AWS	0.5 0.5 d	0.5 0.5 d	0 1! 0	0 1! 0	9.6	10.4	A	B
7	Eucalyptus Av. / Winchester Dr.	CSS	0 1 0	0 1 0	0 0 0	0 1! 0	17.0	15.0	C	C
8	Eucalyptus Av. / Baseline Rd.									
	- Without Improvements	TS	0.5 0.5 d	0.5 0.5 d	1 2 0	1 2 0	**>80**	**78.8**	**F**	**E**
	- With Improvementsd	TS	**1** 1 0	**1** 1 0	1 2 0	1 2 0	19.8	17.0	B	B
9	Pepper Av. / Highland Av.									
	- Planned SR-210/Pepper Interchange[e]	***TS***	***1 1 1***	0 1! 0	1 2 0	1 2 0	**>80**	**>80**	**F**	**F**
	- With Additional Improvements	***TS***	***1*** **0.5** ***1.5***	0 1! 0	1 2 **1>**	1 2 0	35.5	38.2	D	D
10	Pepper Av. / SR-210 WB Ramps[5]	***TS***	***1 2*** 0	0 ***2*** 0	0 0 0	***1*** 0 ***1***	26.0	26.6	C	C
11	Pepper Av. / SR-210 EB Ramps[e]	***TS***	0 ***2*** 0	***1 2*** 0	***1*** 0 ***1***	0 0 0	23.6	26.6	C	C
12	Pepper Av. / Winchester Dr.									
	- Without Improvements	CSS	0.5 0.5 d	0.5 0.5 d	0 1! 0	0 1! 0	**>50**	**>50**	**F**	**F**
	- With Improvements	TS	**1 2** 0	**1 2** 0	0 1! 0	0 1! 0	14.7	10.2	B	B
13	Pepper Av. / Mariposa Dr.									
	- Without Improvements	CSS	0.5 0.5 d	0.5 0.5 d	0 1! 0	0 1! 0	>50	>50	F	F
	- With Improvementsg	TS	1 2 0	1 2 0	0 1! 0	0 1! 0	4.7	4.6	A	A
14	Pepper Av. / Baseline Rd.[f]	TS	1 2 0	1 2 0	1 2 0	1 2 0	28.7	31.0	C	C
15	Pepper Av. / Etiwanda Av.									
	- Without Improvements	AWS	1 1 0	1 2 0	0 1! 0	0 1! 0	**>50**	49.6	**F**	**E**
	- With Improvements	**TS**	1 1 0	1 2 0	0 1! 0	0 1! 0	16.5	17.0	B	B
16	Pepper Av. / Foothill Bl.									
	- Without Improvements	TS	1 2 0	1 2 0	1 2 1	1 2 d	**68.4**	**>80**	**E**	**F**
	- With Improvements	TS	1 2 0	1 2 **1**	1 2 **1>**	1 **3** 0	39.1	47.9	D	D
17	Meridian Av. / Baseline Rd.	TS	1 0 1	0 0 0	0 2 0	1 2 0	9.1	11.3	A	B
18	Macy St. / Highland Av.	TS	0 1! 0	0.5 0.5 1	1 2 0	1 2 0	54.2	39.9	D	D
19	State St. / Highland Av.	TS	1 3 1	1 2 1	1 2 1	2 2 d	46.1	48.4	D	D
20	State St. / SR-210 WB Ramps	TS	2 2 0	0 1.5 1.5	0 0 0	1 1! 1	11.9	12.4	B	B

#	Intersection	Traffic Control[c]	Intersection Approach Lanes[a] North-bound L T R	South-bound L T R	East-bound L T R	West-bound L T R	Delay[b] (Secs) AM	Delay[b] (Secs) PM	Level of Service[b] AM	Level of Service[b] PM
21	State St. / SR-210 EB Ramps	TS	2 2 0	1 1.5 1.5	1 1! 1	1 1 0	39.3	37.6	D	D
22	Pepper Av. / Rialto Av.	TS	1 2 0	1 2 0	1 2 0	1 2 0	30.6	32.4	C	C
23	Pepper Av. / Main Dwy.			Future Intersection			--	--	--	--
24	Pepper Av. / South Dwy.			Future Intersection			--	--	--	--

[a] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 1! = Shared Left-Through-Right turn lane;
1 = Planned Pepper Av./SR-210 Interchange; **1** = Improvement

[b] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. (or movements sharing a single lane) are shown. **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS). Delay and level of service calculated using Syncrho 8.0 analysis software.

[c] TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop.

[d] Modified east/west phasing from permitted to protected phase.

[e] Source: State Route 210/Pepper Avenue Interchange Traffic Impact Analysis, prepared by IBI Group (March 2012)

[f] Per City of Rialto, a traffic signal upgrade at Pepper Avenue/Baselines (intersection #14) include modifying the east/west phasing from permissive to protected phase and north/south phasing from permitted to protected/permissive phase and north/south phasing from permitted to protected/permissive phase.

[g] Signal warranted for cumulative with project conditions.

SOURCE: Pepper Avenue Specific Plan, Traffic Impact Analysis, Urban Crossroads, Inc., dated January 13, 2016.

In addition, the three intersections as deficient for 2017 Without Project conditions did not meet City LOS standards for the AM peak hour. Each of these three previously identified intersections do not meet City of LOS standards in the PM peak hour for 2035 Without Project conditions (i.e., the three intersections are deficient in both peak hours).

Long Range (2035) With Project Traffic Conditions (Intersections)

For Long Range (2035) With Project conditions, **Table 4.H-16**, *Intersection Analysis for Long Range (2035) Without Project Conditions*, indicates that the addition of Project traffic would result in the following two additional deficiencies beyond those previously identified under Long Range (2035) Without Project traffic conditions:

- Pepper Avenue/SR-210 Westbound Ramps (Intersection #10) LOS E (PM)
- Pepper Avenue/SR-210 Eastbound Ramps (Intersection #11) LOS F (PM)

Additionally, the Project's contribution to the Without Project deficiencies is considered cumulatively considerable.

TABLE 4.H-16
INTERSECTION ANALYSIS FOR LONG RANGE (2035) WITH PROJECT CONDITIONS

#	Intersection	Traffic Control[c]	Intersection Approach Lanes[a] North-bound L T R	South-bound L T R	East-bound L T R	West-bound L T R	Delay[b] (Secs) AM	Delay[b] (Secs) PM	Level of Service[b] AM	Level of Service[b] PM
1	Riverside Av. / SR-210 WB Ramps	TS	2 2 0	0 4 1	0 0 0	1 1! 1	29.6	28.5	C	C
2	Riverside Av. / SR-210 EB Ramps	TS	0 3.5 1.5	2 2 0	1 0.5 1.5	0 0 0	18.6	18.7	B	B
3	Riverside Av. / Easton St.									
	- Without Improvements	TS	1 3 0	2 2 1	1 1 0	1 1 1	**72.0**	**60.2**	**E**	**E**
	- With Improvements	TS	1 3 0	2 2 1	1 1 0	1 1 **1>**	54.9	51.6	D	D
4	Highland Av. / Commercial Dwy.	CSS	1 2 0	0 2 0	0 1! 0	0 0 0	14.0	29.7	B	D
5	Highland Av. - Easton St. / Easton St.	TS	1 2 0	1 2 0	0 1! 0	1 1 0	17.6	12.7	B	B
6	Eucalyptus Av. / Walnut Av.	AWS	0.5 0.5 d	0.5 0.5 d	0 1! 0	0 1! 0	9.8	11.2	A	B
7	Eucalyptus Av. / Winchester Dr.	CSS	0 1 0	0 1 0	0 0 0	0 1! 0	18.6	17.4	C	C
8	Eucalyptus Av. / Baseline Rd.									
	- Without Improvements	TS	0.5 0.5 d	0.5 0.5 d	1 2 0	1 2 0	**>80**	**77.0**	**F**	**E**
	- With Improvements[d]	TS	**1** 1 0	**1** 1 0	1 2 0	1 2 0	20.0	17.8	B	B
9	Pepper Av. / Highland Av.									
	- Planned SR-210/Pepper Interchange[e]	***TS***	***1 1 1***	0 1! 0	1 2 0	1 2 0	**>80**	**>80**	**F**	**F**
	- With Additional Improvements	***TS***	***1.0*** **0.5** ***1.5***	0 1! 0	1 2 **1>**	1 2 0	39.9	50.0	D	D
10	Pepper Av. / SR-210 WB Ramps									
	- Planned SR-210/Pepper Interchange[e]	***TS***	***1 2*** 0	0 ***2*** 0	0 0 0	***1*** 0 ***1***	32.1	**70.9**	C	**E**
	- With Additional Improvements	***TS***	**1.5 1.5** 0	0 ***2*** 0	0 0 0	**2** 0 ***1***	33.2	50.2	C	D
11	Pepper Av. / SR-210 EB Ramps									
	- Planned SR-210/Pepper Interchange[e]	***TS***	0 ***2*** 0	***1 2*** 0	***1*** 0 ***1***	0 0 0	25.6	**>80**	C	**F**
	- With Additional Improvements	***TS***	0 ***2*** **1**	***1 2*** 0	***1*** 0 **2**	0 0 0	15.3	32.9	B	C
12	Pepper Av. / Winchester Dr.									
	- Without Improvements	CSS	0.5 0.5 d	0.5 0.5 d	0 1! 0	0 1! 0	**>50**	**>50**	**F**	**F**
	- With Improvements	**TS**	**1 2** 0	**1 2** 0	0 1! 0	0 1! 0	14.7	10.7	B	B
13	Pepper Av. / Mariposa Dr.									
	- Without Improvements	CSS	0.5 0.5 d	0.5 0.5 d	0 1! 0	0 1! 0	**>50**	**>50**	**F**	**F**
	- With Improvements	**TS**	**1 2** 0	**1 2** 0	0 1! 0	0 1! 0	4.6	4.3	A	A
14	Pepper Av. / Baseline Rd.[f]	TS	1 2 0	1 2 0	1 2 0	1 2 0	36.3	44.5	D	D
15	Pepper Av. / Etiwanda Av.									
	- Without Improvements	AWS	1 1 0	1 2 0	0 1! 0	0 1! 0	**>50**	**>50**	**F**	**F**
	- With Improvements	**TS**	1 1 0	1 2 0	0 1! 0	0 1! 0	17.3	20.4	B	C
16	Pepper Av. / Foothill Bl.									
	- Without Improvements	TS	1 2 0	1 2 0	1 2 1	1 2 d	**69.8**	**>80**	**E**	**F**
	- With Improvements	TS	1 2 0	1 2 **1**	1 2 **1>**	1 **3** 0	39.4	49.2	D	D

#	Intersection	Traffic Control[c]	Intersection Approach Lanes[a] North-bound L T R	South-bound L T R	East-bound L T R	West-bound L T R	Delay[b] (Secs) AM	Delay[b] (Secs) PM	Level of Service[b] AM	Level of Service[b] PM
17	Meridian Av. / Baseline Rd.	TS	1 0 1	0 0 0	0 2 0	1 2 0	10.3	18.7	B	B
18	Macy St. / Highland Av.	TS	0 1! 0	0.5 0.5 1	1 2 0	1 2 0	53.8	39.9	D	D
19	State St. / Highland Av.	TS	1 3 1	1 2 1	1 2 1	2 2 d	45.3	50.4	D	D
20	State St. / SR-210 WB Ramps	TS	2 2 0	0 1.5 1.5	0 0 0	1 1! 1	12.0	12.5	B	B
21	State St. / SR-210 EB Ramps	TS	2 2 0	1 1.5 1.5	1 1! 1	1 1 0	39.4	37.7	D	D
22	Pepper Av. / Rialto Av.	TS	1 2 0	1 2 0	1 2 0	1 2 0	30.7	32.6	C	C
23	Pepper Av. / Main Dwy.	**TS**	**1** **2** 0	**2** **2** 0	**1** **1** 0	**1** **1** **1**	6.3	16.8	A	B
24	Pepper Av. / South Dwy.	**TS**	0 **2** 0	**1** **2** 0	0 0 0	**1** 0 **1**	6.4	17.3	A	B

[a] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 1! = Shared Left-Through-Right turn lane;
1 = Planned Pepper Av./SR-210 Interchange; 1 = Improvement

[b] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. (or movements sharing a single lane) are shown.
BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS). Delay and level of service calculated using Syncrho 8.0 analysis software.

[c] TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop.

[d] Modified east/west phasing from permitted to protected phase.

[e] Source: State Route 210/Pepper Avenue Interchange Traffic Impact Analysis, prepared by IBI Group (March 2012)

[f] Per City of Rialto, a traffic signal upgrade at Pepper Avenue/Baselines (intersection #14) include modifying the east/west phasing from permissive to protected phase and north/south phasing from permitted to protected/permissive phase

Project Impact Considerations at Non-Deficient Intersections

At various intersection locations where the projected LOS is acceptable pursuant to the City of Rialto standards, the Project-related change in average intersection delay triggers the City's sliding scale criteria for a potential project impact. Two non-deficient intersections where this condition occurs include:

- Highland Avenue/Commercial Driveway (Intersection #4)
- Pepper Avenue/Baseline Road (Intersection #14)

As noted above, the City of Rialto requires that LOS D or better be maintained on Arterial Streets where possible. The one exception is Riverside Avenue south of the Metrolink tracks all the way to the City's outer border, where LOS "E" is allowed during the peak hour as the acceptable standard.

In addition to the volume increases, changes in average delay at an intersection can occur with new development based upon numerous operational considerations including the following:

- The type of intersection control and lane configuration can increase or decrease intersection delay for various users.

- At an intersection with an additional leg for a new project driveway, the presence of project related traffic can cause an increase in delay. On the occasions where this occurs at an intersection controlled by a cross-street stop (CSS), the delays are focused on the cross-streets and the delay on the major street may not be impacts.
- Delay calculations can also be affected by traffic flow patterns. The LOS and capacity analysis performed by Synchro takes into consideration the interrelationships of signalized intersections within a network. For example, a lane improvement at a nearby intersection can result in better grouping of vehicles, where autos arrive at an intersection in a more consolidated fashion and therefore require less green time.

Table 4.H-17, *Intersection Summary for Impacts at Non-Deficient Locations for Long Range (2035) Conditions*, summarizes intersection analysis with and without additional improvements needed to address changes in delay for non-deficient intersections.

TABLE 4.H-17
INTERSECTION SUMMARY FOR IMPACTS AT NON-DEFICIENT LOCATIONS FOR LONG RANGE (2035) CONDITIONS

															Without Project				With Project			
			Intersection Approach Lanes [a]																			
			North-bound			South-bound			East-bound			West-bound			Delay[b] (Secs)		Level of Service b		Delay[b] (Secs)		Level of Service b	
#	Intersection	Traffic Control[c]	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM
4	Highland Av. / Commercial Dwy.[e,f]	CSS	1	2	0	0	2	0	0	1!	0	0	0	0	13.1	24.7	B	C	14.0	29.7	B	D
14	Pepper Av. / Baseline Rd.																					
	- With existing lane configuration [d]	TS	1	2	0	1	2	0	1	2	0	1	2	0	28.7	31.0	C	C	36.3	44.5	D	D
	- With separate SBR improvement [d,e]	TS	1	2	0	1	2	**1**	1	2	0	1	2	0	-	-	-	-	31.5	35.3	C	D

[a] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 1! = Shared Left-Through-Right turn lane; 1 = Improvement

[b] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. (or movements sharing a single lane) are shown.
BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS). Delay and level of service calculated using Syncrho 8.0 analysis software.

[c] TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop.

[d] Per City of Rialto, a traffic signal upgrade at Pepper Avenue/Baselines (intersection #14) include modifying the east/west phasing from permissive to protected phase and north/south phasing from permitted to protected/permissive phase.

[e] Per City of Rialto, improvements are recommended to mitigate the Project's significant impact at intersections operating at acceptable LOS (LOS A thru D) where the peak hour delay increase as follows: LOS A/B = By 10.0 seconds; LOS C = By 8.0 seconds; LOS D = By 5.0 seconds

[f] It should be noted that the eastbound left turn movement from the commercial driveway is the worst movement with the highest delay (29.7 seconds in the PM peak hour). Providing physical improvements (such as adding capacity for the eastbound left turn) will not solve this problem because the high northbound through traffic (556 vehicles in the PM peak hour) along Highland Avenue will impede the eastbound left turn movements. Installation of a traffic signal at this location is not recommended because traffic volumes do not warrant signal control. Therefore, a significant impact at this location is not expected and improvements are not recommended.

SOURCE: Pepper Avenue Specific Plan, Traffic Impact Analysis, Urban Crossroads, Inc., dated January 13, 2016.

At Highland Avenue/Commercial Driveway (Intersection #4), the PM peak hour intersection delay increases from 24.7 seconds (LOS C) for Without Project conditions to 29.7 seconds (LOS

D) for With Project conditions. No feasible improvements would reduce the With Project delay to a level equivalent to or better than Without Project conditions. However, this intersection would operate at an acceptable LOS D and the delay created would be less than 8 seconds compared to its "pre-project" LOS C condition. Thus, no significant traffic impact would occur at this intersection.

The PM peak hour intersection delay at Pepper Avenue/Baseline Road (Intersection #14) is increased from 31.0 seconds (LOS C) for Without Project conditions to 44.5 seconds (LOS D) for With Project conditions. The following improvement would reduce the With Project delay to a level equivalent to or better than Without Project conditions.

Pepper Avenue/Baseline Road (Intersection #14):

- SB Approach: Provide separate right turn lane.

Please see Section 4, Mitigation Measures, for the mitigation prescribed for the Project.

Roadway Segment Capacity Analysis

The Long Range (2035) With Project conditions roadway segment capacity analysis is presented in **Table 4.H-18**, *Roadway Volume/Capacity Analysis for Long Range (2035) With Project Conditions*. As shown in Table 4.H-18, Pepper Avenue south of the SR-210 Eastbound Ramps is the only study area roadway segment anticipated to exceed the theoretical daily segment LOS thresholds. The Project contributes approximately 40 percent of the traffic volume at this location. The Project access driveways are served by enhanced capacity via turn lanes, and no negative effect on the through lanes is anticipated.

TABLE 4.H-18
ROADWAY VOLUME/CAPACITY ANALYSIS FOR LONG RANGE (2035) WITH PROJECT CONDITIONS

Roadway	Segment	Through Travel Lanes[a]	LOS "E" Capacity[b]	ADT[c]	Volume/ Capacity Ratio
Highland Av.	West of Pepper Av.	4	26,000	19,200	0.74
	East of Pepper Av.	4	26,000	24,600	0.95
Pepper Av.	South of Highland Av.	***4***	33,000	20,504	0.62
	South of SR-210 EB Ramps	***4***	33,000	**36,100**	**1.09**
	North of Baseline Av.	4	33,000	24,500	0.74
	South of Baseline Av.	4	33,000	24,800	0.75
	North of Foothill Bl.	4	33,000	23,498	0.71
Winchester Dr.	West of Pepper Av.	2	3,100	2,912	0.94
Baseline Rd.	West of Pepper Av.	4	33,000	18,950	0.57
	East of Pepper Av.	4	33,000	25,800	0.78

[a] Number of Through lanes: 2 = Existing; 2 = Planned Improvement

[b] Source: City of Rialto Traffic Impact Analysis Report Guidelines and Requirements (December 2013), Exhibit D

[c] Long Range (2035) With Project Conditions Average Daily Traffic (ADT) expressed in vehicles per day. BOLD = Estimated to exceed threshold daily LOS values and subject to further evaluation of peak hour performance at key intersections along these routes.

SOURCE: Pepper Avenue Specific Plan, Traffic Impact Analysis, Urban Crossroads, Inc., dated January 13, 2016.

As mentioned previously, roadway segment capacities are approximate figures only, and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet traffic demand. For Long Range (2035) With Project conditions, roadway segments that are estimated to exceed the daily volume threshold values are further reviewed based on the more detailed peak hour intersection analysis, which explicitly account for factors that affect roadway during peak periods. Review of the Synchro SimTraffic peak hour simulations indicate that the recommended intersection improvements identified under 2035 conditions provide acceptable level of service for both study area intersections and roadway segments.

Traffic Signal Warrants Analysis

For Long Range (2035) Without Project conditions, the following intersections are anticipated to meet traffic signal warrants, in addition to the intersections identified as meeting traffic signal warrants under Opening Year (2017) Without Project conditions:

- Pepper Avenue/Winchester Drive (Intersection #12)
- Pepper Avenue/Etiwanda Avenue (Intersection #15)

For Long Rang (2035) With Project conditions, the intersection of Pepper Avenue/Mariposa Drive Intersection #13) is anticipated to meet traffic signal warrants, in addition to the intersections identified as meeting traffic signal warrants under Opening Year (2017) With Project conditions and Long Range (2035) Without Project conditions.

Basic Freeway Segment Analysis

The Long Range (2035) Without and With Project basis freeway segment analysis results are presented on **Table 4.H-19**, *Basic Freeway Segment Analysis for Long Range (2035) Without Project Conditions* and **Table 4.H-20**, *Basic Freeway Segment Analysis for Long Range (2035) With Project Conditions.* As shown on Table 4.H-19 and 4.H-20, all freeway mainline segments are anticipated to operate at LOS "E" or better during the peak hours with existing geometry.

TABLE 4.H-19
BASIC FREEWAY SEGMENT ANALYSIS FOR LONG RANGE (2035) WITHOUT PROJECT CONDITIONS

Freeway	Direction	Mainline Segment Location	Lanes[a]	Volume AM	Volume PM	Density[b] AM	Density[b] PM	LOS[c] AM	LOS[c] PM
SR-210 Freeway	WB	East of Pepper Avenue	4	7,363	7,791	33.8	37.4	D	E
		West of Pepper Avenue	4	7,250	7,548	33.0	35.3	D	E
	EB	West of Pepper Avenue	4	6,990	7,602	31.1	35.8	D	E
		East of Pepper Avenue	4	6,812	7,423	29.9	34.3	D	D

[a] Number of lanes are in the specified direction and is based on existing conditions.
[b] Density is measured by passenger cars per mile per lane (pc/mi/ln).
[c] Level of service determined using HCS 2010: Basic Freeway Segments software, Version 6.65.

SOURCE: Pepper Avenue Specific Plan, Traffic Impact Analysis, Urban Crossroads, Inc., dated January 13, 2016.

TABLE 4.H-20
BASIC FREEWAY SEGMENT ANALYSIS FOR LONG RANGE (2035) WITH PROJECT CONDITIONS

Freeway	Direction	Mainline Segment Location	Lanes[a]	Volume		Density[b]		LOS[c]	
				AM	PM	AM	PM	AM	PM
SR-210 Freeway	WB	East of Pepper Avenue	4	7,504	8,047	34.9	39.8	D	E
		West of Pepper Avenue	4	7,311	7,843	33.4	37.9	D	E
	EB	West of Pepper Avenue	4	7,126	7,851	32.1	37.9	D	E
		East of Pepper Avenue	4	6,875	7,728	30.3	36.8	D	E

[a] Number of lanes are in the specified direction and is based on existing conditions.
[b] Density is measured by passenger cars per mile per lane (pc/mi/ln).
[c] Level of service determined using HCS 2010: Basic Freeway Segments software, Version 6.65.

SOURCE: Pepper Avenue Specific Plan, Traffic Impact Analysis, Urban Crossroads, Inc., dated January 13, 2016.

Long Range (2035) Impacts and Recommended Improvements

Off-Site Project Improvements

Based on the City of Rialto's significance criteria, the addition of Project traffic would result in the following additional deficiencies beyond those previously identified under Long Range (2035) Without Project traffic conditions:

- Pepper Avenue/SR-210 Westbound Ramps (Intersection #10) LOS E (PM)
- Pepper Avenue/SR-210 Eastbound Ramps (Intersection #11) LOS F (PM)

The following off-site improvements are recommended to mitigate the Project's impact to operate at acceptable LOS "D" or better.

Pepper Avenue/SR-210 Westbound Ramps (Intersection #10):

- Northbound Approach: Modify traffic signal to provide north/south split phase. Restripe first through lane to provide a left-through lane, in addition to the left turn lane and second through lane.
- Westbound Approach: Provide additional (second) left turn lane.

Pepper Avenue/SR-210 Eastbound Ramps (Intersection #11):

- Northbound Approach: Provide separate right turn lane.
- Eastbound Approach: Provide additional (second) right turn lane.

Cumulative 2035 Improvements

Additionally, the Project would contribute to existing deficiencies, thus resulting in a cumulative impact. Improvement strategies have been recommended at intersections that have been identified as cumulatively impacted or deficient in an effort to reduce each location's peak hour delay and improve the associated LOS grade to LOS "D" or better.

Improvement strategies identified in Table 4.H-16 have been recommended at the following intersections that have been identified as cumulatively impacted to reduce each location's peak hour delay to less than significant, in addition to the improvements previously identified under Opening Year (2017) conditions.

Pepper Avenue/Highland Avenue (Intersection #9):

- Northbound Approach: Restripe through lane to shared through-right lane, in addition to the left turn lane and right turn lane.
- Eastbound Approach: Participate in the signal modification to provide separate right turn overlap signal phasing for the right turn lane.

Pepper Avenue/Winchester Drive Intersection #12):

- Participate in construction of a traffic signal.
- Northbound Approach: Provide separate left turn lane and second through lane, eliminating defacto right turn lane.
- Southbound Approach: Provide separate left turn lane and second through lane, eliminating defacto right turn lane.

Pepper Avenue/Mariposa Drive (Intersection #13):

- Participate in construction of a traffic signal.
- Northbound Approach: Provide separate left turn lane and second through lane, eliminating defacto right turn lane.
- Southbound Approach: Provide separate left turn lane and second through lane, eliminating defacto right turn lane.

Pepper Avenue/Baseline Road (Intersection #14):

- SB Approach: Provide separate right turn lane.

Pepper Avenue/Foothill Boulevard (Intersection #16):

- Participate in the signal modification to provide separate right turn overlap signal phasing for the existing eastbound right turn lane.
- Southbound Approach: Provide separate right turn lane.
- Westbound Approach: Provide additional (third) through lane.

Per Mitigation Measure TRAF-1, future Project applicant(s) shall participate in the City of Rialto DIF Program by paying applicable fees, supplemented by participation in additional fair share intersection improvement costs as needed. Payment of fees to these fee programs may be considered as mitigation for the Project's proportionate share of cumulative impacts. If the City finds that the payment of DIF fees alone do not adequately address the Project's proportionate share, a fair share contribution may be imposed in order to mitigate the Project's share of cumulative impacts. The City would ensure that the improvements will be constructed pursuant to the fee program at the point in time necessary to avoid identified significant traffic impacts.

Please see Section 4, Mitigation Measures, below, for the mitigation prescribed for the Project.

(3) Congestion Management

Threshold TRAF-2: A significant impact would occur if the Project conflicts with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

Impact Statement TRAF-2: Implementation of the Project would not 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 management agency for designated roads or highways. This impact would be less than significant.

The analysis of Project traffic in relation to the regional transportation system is conducted according to the CMP. The regional transportation system analysis determines if Project-generated trips would exceed the CMP thresholds requiring additional analysis of CMP freeway or intersection locations. This Project does not meet the CMP analysis threshold so a CMP analysis is not required. Therefore, impacts to CMP facilities would be less than significant.

Furthermore, the Long Range (2035) Without and With Project basis freeway segment analysis results are presented on Table 4.H-19 and Table 4.H-20. As shown in the tables, all freeway mainline segments are anticipated to operate at LOS "E" or better during the peak hours with existing geometry.

(4) Traffic Hazards

Threshold TRAF-3: A significant impact would occur if the Project substantially increases hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Impact Statement TRAF-3: Implementation of the Project would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections). This impact would be less than significant.

The Pepper Avenue interchange with the SR-210 Freeway would provide regional access to the Project Site. The Project Site would be locally accessed via Pepper Avenue from the north and south. Adjacent and surrounding land uses in the Project area include Caltrans right-of-way/SR-210 Freeway to the north; vacant land and the BNSF Railroad followed by the Lytle Creek Wash to east; single-family residential uses and Frisbee Park to the west; and an unnamed wash and vacant land followed by single-family residential uses to the south. The SR-210 Freeway and Pepper Avenue interchange project is currently under construction and is anticipated to be completed in 2016 prior to opening of future development within the Project Site. There are no

existing hazardous design features such as sharp curves or dangerous intersections on-site or in the surrounding area.

As discussed above, as part of the Project, roadway improvements identified within DF TRAF-1 to DF TRAF-4 would be implemented in conjunction with adjacent Project development activity or as needed for Project access purposes. Construction of any traffic improvements would occur in conjunction with adjacent project development activity or as needed for project access purposes. The Project's access drives and internal driveways would be designed to meet the City of Rialto and Rialto Fire Department (RFD) standards. Sight distance at each Project access driveways would be reviewed with respect to Caltrans and City of Rialto sight distance standards at the time of preparation of final grading, landscape, and street improvement plans.

For the purpose of this analysis, a traffic signal progression analysis has also been conducted for Pepper Avenue, between Highland Avenue and South Project Driveway under Long Range (2035) with Project conditions, with the Project's roadway improvements to evaluate vehicular queuing by considering the signal timing and physical spacing of intersections.

The progression analysis conducted along Pepper Avenue, between Highland Avenue and South Project Driveway, is utilized to evaluate the turning pocket lengths necessary to accommodate 95th percentile peak hour queues and to demonstrate acceptable peak hour operations in the study area. The progression analysis was conducted for the weekday AM and PM peak hours.

The traffic modeling and signal timing optimization software package Synchro plus SimTraffic (Version 8 Build 801) has been utilized for the progression analysis. Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the Chapter 18 and Chapter 31 of the HCM 2010 and the unsignalized intersection capacity analysis as specified in Chapter 19, Chapter 20, and Chapter 32 of the HCM 2010. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length in Synchro. The LOS and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network.

SimTraffic is a traffic simulation software application that utilizes the Synchro network. SimTraffic is designed to model networks of signalized and unsignalized intersections, with the primary purpose of checking and fine tuning signal operations. SimTraffic uses the input parameters from Synchro to generate random simulations. The random simulations generated by SimTraffic have been utilized to determine the 95th percentile queue lengths observed along these roadway segments. A SimTraffic simulation has been recorded five times, during the weekday AM and PM peak hours, and has been seeded for 5-minute periods with 10-minute recording intervals. The queuing length results are based on an average of these five simulations.

The recommended traffic signal timing for the intersections along Pepper Avenue, between Highland Avenue and South Project Driveway for Long Range (2035) With Project Conditions with the identified intersection improvements are presented in **Table 4.H-21**, *Pepper Avenue/SR-210 Interchange Area Queuing Analysis Summary for Long Range (2035) With Project Conditions, With Intersection Improvements*. By providing storage lengths consistent with the

recommendations in Table 4.H-21, traffic flow and associated roadway hazards would be minimized such that less than significant impacts would occur.

TABLE 4.H-21
PEPPER AVENUE/SR-210 INTERCHANGE AREA QUEUING ANALYSIS SUMMARY FOR LONG RANGE (2035) WITH PROJECT CONDITIONS, WITH INTERSECTION IMPROVEMENTS[a]

ID	Intersection	Turning Movement Lane	Existing Storage Length[b] (feet)	Recommended Storage Length[b,c] (feet)	95th Percentile Queue Length Per Lane (feet) AM	PM
9	Pepper Avenue / Highland Avenue					
		EBLEBT	330	330	33	22
		EBR	>500	>500	135	127
		WBL	150	150	38	84
		WBT/R	280	**400**	309	361
		NBL	>500	>500	105	306
		NBT	-	**215**[d]	130	229
		NBR	-	**260**	77	219
			-	**260**	59	140
10	Pepper Avenue / SR-210 WB Ramps					
		WBL	-	**300** (dual)	208	239
		WBR	-	**300**	96	212
		NBL	-	**310**	152	236
		NBT	-	**310**	152	204
		SBT/R	-	**260**	190	219
11	Pepper Avenue / SR-210 EB Ramps					
		EBL	-	**300**	223	292
		EBR	-	**300** (dual)	163	265
		NBT	-	**490**	105	246
		NBR	-	**300**	62	122
		SBL	-	**310**	161	189
		SBT	-	**310**	120	208
23	Pepper Avenue / Main Driveway					
		EBL	-	**150**	62	134
		EBT/R	-	**150**	22	49
		WBL	-	**150**	40	112
		WBT	-	**150**	10	27
		WBR	-	**150**[d]	67	177
		NBL	-	**150**	72	116
		NBT/R	-	**>500**	109	184
		SBL	-	**200** (dual)	87	167
		SBT/R	-	**190**	66	186

ID	Intersection	Turning Movement Lane	Existing Storage Length[b] (feet)	Recommended Storage Length[b,c] (feet)	95th Percentile Queue Length Per Lane (feet) AM	PM
24	Pepper Avenue / South Driveway					
		WBL	-	**150**	45	123
		WBR	-	**150**	49	125
		NBT/R	-	**>500**	184	219
		BL	-	**200**	125	157
		SBT	-	**260**	59	82

[a] Queue length calculated using Synchro 8 with SimTraffic.
[b] Pocket length storage (for turning movements) or link distance (for through movements).
[c] Minimum recommended storage length needed to accommodate the anticipated 95th percentile queues.
BOLD = Recommended Storage Length; Blue = Storage length based on the Pepper Av./SR-210 Interchange design features
[d] 95th percentile queue is anticipated to exceed available storage length. However, review of the SimTraffic simulation results indicate that the turn lane queue is anticipated to clear in a timely manner and that the provided pocket length is adequate to accommodate the future peak hour queues.

SOURCE: Pepper Avenue Specific Plan, Traffic Impact Analysis, Urban Crossroads, Inc., dated January 13, 2016.

(5) Plan and Policy Consistency

Threshold TRAF-4: A significant impact would occur if the Project conflicts with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Impact Statement TRAF-4: Implementation of the Project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. This impact would be less than significant.

The Specific Plan includes a bicycle and pedestrian network and enhancements that encourage biking and walking. The Circulation Plan identifies the development of Class II bike lanes on Pepper Avenue and a potential pedestrian bridge to connect the retail uses with Frisbie Park to the west. Bicycle storage is required under Chapter 18.58 of the Zoning Code for uses within the Project site.

Pepper Avenue north of Baseline Road does not currently have any public transit services. With the recent opening of the Pepper Avenue extension, bus services could be extended to the Project Site. Chapter 5, Development Standards, of the Specific Plan requires that all major developments work with OmniTrans in determining if bus services shall service the Project Site. Should bus services be provided, there is adequate space within the Pepper Avenue right-of-way to accommodate a bus turnout between the Project's two signalized intersections. Furthermore, the Specific Plan would provide bus shelters and other illuminated transit facilitates, should it be determined that transit services be provided to the Site.

As discussed in in Section 4.F, *Land Use and Planning*, of this Draft EIR, the Project would be consistent with the applicable goals and policies of the SCAG RTP/SCS, SCAG's Compass Blueprint, the Rialto General Plan, and other relevant plans and guidance documents. Regarding to the City's Circulation Element, the Project's consistency with relevant policies related to transportation is discussed below in **Table 4.F.2**, *Comparison of the Pepper Avenue Specific Plan with Applicable Policies of the General Plan*. As discussed therein, the Project would not conflict with the implementation of relevant policies pertaining to alternative transportation.

Overall, given the provision of improvements supportive of alternative transportation, subject to review and approval by the City of Rialto, County of San Bernardino, OmniTrans, and/or other affected agencies, the Project would not conflict with adopted polices, plans, or programs supporting public transit, bicycle, or pedestrian facilities, and as such, impacts related to alternative transportation would be less than significant.

e. Cumulative Impacts

The City of Rialto traffic impact analysis guidelines require that other reasonably foreseeable development projects which are either approved or being processed concurrently in the study area also be included as part of a cumulative analysis scenario. A cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the City of Rialto. Table 3-1, List of Related Projects, and Figure 3-1, Related Projects Map, in Chapter 3 of this EIR illustrate the related projects and their proposed uses.

Impacts on traffic associated with construction (i.e., an intermittent reduction in street and intersection operating capacity) are typically considered short-term adverse impacts, but not significant. The Project would result in a less than significant impact during construction with the implementation of a construction management plan (DF SERVICE-1) that would incorporate notification and safety procedures and controls. Each cumulative project would be required to comply with City requirements regarding haul routes and would implement mitigation measures and/or include project design features, such as traffic controls and safety procedures, to reduce potential traffic impacts during construction.

The Traffic Impact Analysis was developed to address Project impacts in the context of baseline conditions, Opening Year (2017) and Long Range (2035) conditions. The Opening Year (2017) and Long Range (2035) conditions takes into account traffic caused by the near-term and long-term cumulative development, respectively. Therefore, the analysis of Opening Year (2017) and Long Range (2035) conditions provides the cumulative analysis in that is considers traffic generated by future planned land uses.

As is the case with the Project, each cumulative project would be subject to review and approval of project plans by the RFD to ensure adequate site distance for vehicles, as well as appropriate striping and signage. Therefore, it is anticipated that cumulative projects would not result in safety hazards for vehicles in the area, and cumulative impacts would be less than significant. The Project's contribution to this impact would not be cumulative considerable.

As cumulative development occurs, public transit agencies are expected to respond by expanding their services and facilities to meet growing demands. It is also expected that cumulative development projects would also provide adequate public transit facilities, such as bus turnout, shelters, and signage, to the satisfaction of affected transit agencies. Assuming public transportation keeps pace with demand based on market forces, as is expected, and pedestrian and bicycle facilities are provided concurrent with new development projects within the City, cumulative alternative transportation impacts would be less than significant, and the Project's contribution to this impact would not be cumulatively considerable.

As is the case with the Project, future cumulative development projects would be subject to review regarding consistency with applicable plans, policies, and regulations. It is anticipated that such project review on a case-by-case basis would preclude the potential for adverse impacts resulting from conflicts with traffic-related regulations. The Project's contribution to this impact would not be cumulative considerable, and cumulative impacts would be less than significant.

4. Mitigation Measures

Regional and Local Traffic Impact Fee Mitigation Programs

Traffic and transportation impact fee programs are designed to address and help mitigate cumulative impacts of growth within specific areas of benefit.

Measure I Funds: In 2004, the voters of San Bernardino County approved the 30-year extension of Measure I, a one-half of one percent sales tax on retail transactions, through the year 2040, for transportation projects including, but not limited to, infrastructure improvements, commuter rail, public transit, and other identified improvements. The Measure I extension requires that a regional traffic impact fee be created to ensure development is paying its fair share. A regional Nexus study was prepared by SANBAG and concluded that each jurisdiction should include a regional fee component in their local programs in order to meet the Measure I requirement. The regional component assigns specific facilities and cost sharing formulas to each jurisdiction. Revenues collected through these programs are used in tandem with Measure I funds to deliver projects identified in the Nexus Study.

While Measure I is a self-executing sales tax administered by SANBAG, it bears discussion here because the funds raised through Measure I have funded in the past and will continue to fund new transportation facilities in San Bernardino County. SANBAG has successfully implemented numerous projects that have been funded by Measure I and Measure I should continue to fund additional projects in the future. It should be noted that the proposed SR-210/Pepper Avenue interchange is fully funded from Measure I half-cent sales tax collected in San Bernardino County for transportation improvements, and is anticipated to be completed prior to opening of the Project.

The City of Rialto Development Impact Fee Program: In 2006, the City of Rialto adopted their DIF program incorporating the regional component of Measure I. The fee schedule was recently updated in November 2009. Fees from new residential, commercial and industrial development are collected to fund Measure I compliant regional facilities. Under the City's DIF program, the

City may grant to developers a credit against specific components of fees when those developers construct certain facilities and landscaped medians identified in the list of improvements funded by the DIF program.

After the City's DIF fees are collected, they are placed in a separate interest bearing account pursuant to the requirements of Government Code sections 66000 et seq. The timing to use the DIF fees is established through periodic capital improvement programs which are overseen by the City's Public Works Department. Periodic traffic counts, review of traffic accidents, and a review of traffic trends throughout the City are also periodically performed by City staff and consultants. The City uses this data to determine the timing of the improvements listed in its facilities list.

Fair Share Contribution

Project mitigation may include a combination of fee payments to established programs, construction of specific improvements, payment of a fair share contribution toward future improvements or a combination of these approaches. Improvements constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate (to be determined at the City's discretion).

When off-site improvements are identified with a minor share of responsibility assigned to proposed development, the approving jurisdiction may elect to collect a fair share contribution or require the development to construct improvements. Detailed fair share calculations, for each peak hour, have been provided on Table 9-1 of the Traffic Impact Assessment for the cumulatively impacted intersections identified previously under 2017 and 2035 conditions. The Traffic Impact Assessment provides a rough order of magnitude cost to determine an estimated contribution value based upon the Project's fair share of traffic. However, these estimates are intended only for discussion purposes and do not imply any legal responsibility or formula for contributions or mitigation.

The following mitigation measure is prescribed for the Project to ensure future development within the Project Site funds off-site improvements, as necessary, to mitigate the Project's contribution to project and cumulative traffic impacts, as feasible.

> **Mitigation Measure TRAF-1** - Prior to issuance of building permits, future Project applicant(s) shall participate in the City of Rialto Development Impact Fee (DIF) Program by paying applicable fees, supplemented by participation in additional fair share intersection improvement costs as needed. Such fees shall be determined by additional and/or focused traffic impact studies, as determined necessary by the City of Rialto Traffic Engineering Division, prior to future development occurring within the Specific Plan Area. Payment of fees to these fee programs may be considered as mitigation for the Project's proportionate share of cumulative impacts. If the City finds that the payment of DIF fees alone do not adequately address the Project's proportionate share, a fair share contribution may be imposed in order to mitigate the Project's share of cumulative impacts. Improvements constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate (to be determined at the City's discretion). The improvements identified below shall be funded by the Project's proportionate payment of fees, as determined necessary by the City of Rialto Traffic

Engineering Division. The City shall ensure that the improvements will be constructed pursuant to the fee program at the point in time necessary to avoid identified significant traffic impacts.

Riverside Avenue/Easton Street (Intersection #3):

- Participate in the signal modification to provide separate right turn overlap signal phasing for the existing westbound right turn lane.

Eucalyptus Avenue/Baseline Road (Intersection #8):

- Northbound Approach: Provides separate left turn lane, in addition to the existing through lane.
- Southbound Approach: Provide separate left turn lane, in addition to the existing through lane.

Pepper Avenue/Highland Avenue (Intersection #9):

- Northbound Approach: Restripe through lane to shared through-right lane, in addition to the left turn lane and right turn lane.
- Eastbound Approach: Participate in the signal modification to provide separate right turn overlap signal phasing for the right turn lane.

Pepper Avenue/SR-210 Westbound Ramps (Intersection #10):

- Northbound Approach: Modify traffic signal to provide north/south split phase. Restripe first through lane to provide a left-through lane, in addition to the left turn lane and second through lane.
- Westbound Approach: Provide additional (second) left turn lane.

Pepper Avenue/SR-210 Eastbound Ramps (Intersection #11):

- Northbound Approach: Provide separate right turn lane.
- Eastbound Approach: Provide additional (second) right turn lane.

Pepper Avenue/Winchester Drive (Intersection #12):

- Participate in construction of a traffic signal.
- Northbound Approach: Provide separate left turn lane and second through lane, eliminating defacto right turn lane.
- Southbound Approach: Provide separate left turn lane and second through lane, eliminating defacto right turn lane.

Pepper Avenue/Mariposa Drive (Intersection #13):

- Participate in construction of a traffic signal.
- Northbound Approach: Provide separate left turn lane and second through lane, eliminating defacto right turn lane.

- Southbound Approach: Provide separate left turn lane and second through lane, eliminating defacto right turn lane.

Pepper Avenue/Baseline Road (Intersection #14):

- SB Approach: Provide separate right turn lane.

Pepper Avenue/Etiwanda Avenue (Intersection #15):

- Participate in construction of a traffic signal.

Pepper Avenue/Foothill Boulevard (Intersection #16):

- Participate in the signal modification to provide separate right turn overlap signal phasing for the existing eastbound right turn lane.
- Southbound Approach: Provide separate right turn lane.
- Westbound Approach: Provide additional (third) through lane.

5. Level of Significance After Mitigation

With the implementation of and adherence to the prescribed mitigation measure included herein, potentially significant traffic impacts at the following intersections would be reduced to a less than significant level: Intersection #3, and Intersections #8 to # 16. All other impacts would be less than significant.

CHAPTER 5
Alternatives

1. Summary of the Alternatives

Under CEQA, the identification and analysis of alternatives to a Project is a fundamental aspect of the environmental review process. Public Resources Code Section 21002.1(a) establishes the need to address alternatives in an EIR by stating that in addition to determining a Project's significant environmental impacts and indicating potential means of mitigating or avoiding those impacts, the purpose of an environmental impact report is to identify alternatives to the Project.

Direction regarding the definition of Project alternatives is provided in CEQA Guidelines Section 15126.6(a) as follows:

"An EIR shall describe a range of reasonable alternatives to the Project, or to the location of the Project, which would feasibly attain most of the basic objectives of the Project but would avoid or substantially lessen any of the significant effects of the Project, and evaluate the comparative merits of the alternatives."

The CEQA Guidelines emphasize that the selection of Project alternatives be based primarily on the ability to reduce significant impacts relative to the proposed Project, "even if these alternatives would impede to some degree the attainment of the Project objectives, or would be more costly." The CEQA Guidelines further direct that the range of alternatives be guided by a "rule of reason," such that only those alternatives necessary to permit a reasoned choice are analyzed.

In selecting Project alternatives for analysis, potential alternatives should be feasible. CEQA Guidelines Section 15126.6(f)(1) states that:

"Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, … and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site."

The CEQA Guidelines require the analysis of a "No Project" alternative and an evaluation of alternative location(s) for the Project, if feasible. Based on the alternatives analysis, an environmentally superior alternative is to be designated. If the environmentally superior alternative is the No Project/No Build Alternative, then the EIR shall identify an environmentally superior alternative among the other alternatives.

The first alternative selected for analysis is a No Project/No Build Alternative, pursuant to Section 15126.6(e) of the CEQA Guidelines. Two additional alternatives were selected to minimize the Project's traffic impacts, which correspond to the Project's only significant and avoidable impacts, consisting of cumulative off-site mobile-source (traffic) noise impacts during Project operation. The two alternatives selected would both reduce operational traffic volumes (and associated traffic noise levels) by developing a Project that would be reduced and intensity.

Based on the Project's significant environmental impacts and in consideration of the objectives established for the Project (refer to Chapter 2, Project Description, of this Draft EIR), the following alternatives to the Project are evaluated in this Chapter:

1. No Project/No Build Alternative
2. Reduced Intensity Alternative
3. Existing Zoning Alternative

2. Project Objectives

As discussed in Chapter 2, Project Description, of this Draft EIR, the following describes the objectives of the proposed Specific Plan, which are provided in the Specific Plan as "Specific Plan Goals," and are intended to implement the Plan's Community Planning Vision.

The Pepper Avenue Specific Plan is designed to implement a series of objectives to ensure that the Project results in a high-quality development that meets realistic and achievable objectives. These goals, which are identified below, have been refined throughout the planning and design process for Pepper Avenue:

1. Provide an eastern gateway to the City of Rialto that offers new and exciting retail opportunities and promotes the identity of the North End (Pepper Avenue) neighborhood.
2. Provide freeway-oriented commercial opportunities to serve regional needs and stimulate job and revenue growth in the City.
3. Address the City of Rialto's current and projected housing needs by allowing a portion of the Project to be developed with multi-family residences.
4. Incorporate "Green" and sustainable practices, as practicable, in developing buildings and infrastructure.
5. Undertake development of the Project Site in a manner that is economically feasible and balanced to address both the property owners' and the City's economic concerns.
6. Revitalize the underutilized Project Site through the implementation of a predominantly retail development that will service the surrounding existing residential communities.
7. Encourage pedestrian and bicycle connectivity.
8. Locate and integrate the design of native habitat open space areas into the community, such as providing a potential pedestrian bridge inclusive of interpretive signage that connects the development area with the adjacent Frisbie Park.
9. Maximize the use of native plant materials/species in the Project landscaping, especially in areas located in proximity to preserved native habitat.

3. Alternatives Considered and Rejected

In addition, to the guidance cited above regarding purpose and contents of an analysis of alternatives to a proposed Project, CEQA Guidelines Section 15126.6(c) states that an EIR identify alternatives that were considered for analysis but rejected as infeasible and briefly explain the reasons for their rejection. According to the CEQA Guidelines, the following factors may be used to eliminate alternatives from detailed consideration: the alternative's failure to meet most of the basic Project objectives, the alternative's infeasibility, or the alternative's inability to avoid significant environmental impacts. Alternatives that have been considered and rejected as infeasible include the following.

A. Alternate Site Location Alternative

State CEQA Guidelines Section 15126.6(f)(2) require consideration regarding development at one or more alternative location(s). An alternative site outside of the City of Rialto would require the acquisition of a comparable area of land, or approximately 102 acres, which given the amount of land necessary that is readily accessible would be prohibitive. The Project area is currently served by existing utilities, including water, wastewater, electricity, natural gas, and telecommunications infrastructure, which would also serve future uses on-site. An alternative site location in Southern California with the amount of land required to allow for the proposed Specific Plan to be developed on the property, which is also served by adequate infrastructure, may not be possible in the near-term foreseeable future. Additionally, the location of the Project Site surrounded by existing development adjacent to two major freeways provides an opportunity to concentrate growth within an already urbanized area where a market for housing, goods, and services is already established. Further, this Project was initiated by the City of Rialto as a non-property-owner and the City does not have the same legal authority in other jurisdictions.

B. All Industrial Alternative

The Project Site is located adjacent to Burlington Northern Santa Fe Railroad and to the south of the 210 Freeway. This proximity to the rail line and other transportation facilities, such as the freeway suggests a potential use of the site for development as a distribution center focused on railroad access. Again, this alternative would not appropriately utilize the land to its existing designations and would not allow the City to increase its retail base or residential base as envisioned in the General Plan. As such, this alternative was considered and rejected.

C. Agricultural Alternative

Historical agricultural uses have occurred within the Project Site. This alternative would consist of intensive agricultural use over the Project Site, including potential use of the habitat area. However, the character of the drainage through the Site could preclude the use of portions of the property for agricultural purposes. Regardless, as with other rejected alternatives, this alternative would not utilize the land to its development potential and would not allow the City to increase its retail base or residential base as envisioned in the General Plan. As such, this alternative was considered and rejected.

4. Analysis Format

In accordance with CEQA Guidelines Section 15126.6(d), each alternative is evaluated in sufficient detail to determine whether the overall environmental impacts would be less than, similar to, or greater than the corresponding impacts of the Project. Furthermore, each alternative is evaluated to determine whether the Project objectives, identified in Chapter 2, Project Description, of this Draft EIR would be substantially attained by the alternative. The evaluation of each of the alternatives follows the process described below:

a. The net environmental impacts of the alternative after implementation of reasonable mitigation measures are determined for each environmental issue area analyzed in the EIR.

b. Post-mitigation significant and non-significant environmental impacts of the alternative and the Project are compared for each environmental issue area. Where the net impact of the alternative would be clearly less adverse than the impact of the Project, the comparative impact is said to be "less." Where the alternative's net impact would clearly be more adverse than the Project, the comparative impact is said to be "greater." Where the impacts of the alternative and Project would be roughly equivalent, the comparative impact is said to be "similar."

c. The comparative analysis of the impacts is followed by a general discussion of whether the underlying purpose and basic Project objectives are substantially attained by the alternative.

A. Alternative 1: No Project/No Build Alternative

1. Description of the Alternative

In accordance with the CEQA Guidelines, the No Project/No Build Alternative for a development Project on an identifiable property consists of the circumstance under which the Project does not proceed. Section 15126.6(e)(3)(B) of the CEQA Guidelines states that, "in certain instances, the No Project/No Build Alternative means 'no build' wherein the existing environmental setting is maintained." Accordingly, for purposes of this analysis, the No Project/No Build Alternative (Alternative 1) assumes that no new development proposed by the Specific Plan would occur within the Project Site. Thus, the future development of community commercial, business park and, potentially, residential uses would not occur. Under the No Project/No Build Alternative, future improvements being contemplated by WVWD on their 13.7-acre Lord Ranch Facility located in the southeast portion of the Project Site could still occur. These include the construction and operation of a 1-million-gallon steel-welded reservoir, a 3,500 square-foot pump station in masonry building, paved driveway, and concrete block masonry retaining wall. The masonry retaining wall would extend along the western property line and a portion of the southerly property line to allow the ground surface around Well No. 36 to be raised about 8 feet. The remainder of the Project Site would remain undeveloped and vacant. For purposes of this analysis, because the contemplated WVWD improvements are not being proposed as part of the Specific Plan and would occur with or without the Project, those contemplated improvements are not evaluated herein. Thus, environmental effects under this Alternative would be similar to existing site conditions, as described in the existing setting sections of each analysis in Chapter 4 of this Draft EIR. However, impacts of this Alternative relative to each issue area are discussed below.

2. Environmental Impacts

a. Aesthetics/Visual Resources

(1) Views/Scenic Vistas

The No Project/No Build Alternative would not block views of the San Gabriel and San Bernardino Mountains or other broad views across the site. However, because of the deep setbacks of the Project's future development from off-site public view areas, the Project Site's lower elevation, and building height limitations, the Project would not significantly impact views of the mountains or other broad views across the site. Although the Project would result in a less than significant view impact, the No Project/No Build Alternative would not change in the existing view field across the Project Site. Because no retail, business park or potential residential development would occur under the No Project Alternative, impacts to views and scenic vistas would be less than under Project.

(2) Aesthetics/Visual Character

Under the No Project/No Build Alternative, with the exception of the WVWD facility expansion, no changes in the visual character of the Project Site would occur. The Project Site improvements under the Specific Plan associated with future retail, business park and potential residential development, which include landscaping, architectural design elements, streetscapes, a potential bridge to Frisbie Park and other improvements would not be provided under this Alternative. Although important habitat features occur within the westerly sector of the Project Site containing RAFSS habitat, this area has been disturbed by off-road vehicle activity, as viewed from off-site areas. Generally, the Project Site lacks a high level of visual quality or other valued aesthetic features such as outcroppings, historic buildings, landscaping or other visual buffers. Given the lack of notable visual resources within the Project boundaries, and associated low visual quality, this Alternative would not improve the aesthetic quality of the Project Site. With the conversion of vacant land to urban uses, development of the proposed uses in accordance with the Specific Plan's Design Guidelines would avoid degradation of visual quality and ensure visually cohesive and attractive urban design patterns within the various Planning Areas. As such, although no physical changes would result from this Alternative, the beneficial aesthetic effects of the Specific Plan would not occur. Therefore, impacts would be greater under this Alternative than under the Project.

(3) Light and Glare

Under the No Project/No Build Alternative, no new lighting would be added to the Project Site, in contrast to the Project which would add night-time lighting to the Project Site that is similar to lighting and glare conditions currently occurring in developed portions of the City and surrounding area. Since no new light or glare would occur under the No Project/No Build Alternative, this Alternative would result in less light and glare impacts than under the Project.

b. Air Quality

The No Project/No Build Alternative would include no proposed development on the Project Site resulting in no new air pollutant sources. In contrast, the Project's construction activity and long-

term operation would generate new sources of air quality emissions. Since this Alternative does not involve any new emissions sources (except those in association with the WVWD contemplated improvements), no impact would occur and impacts would be less than the Project.

c. Biological Resources

The No Project/No Build Alternative would not physically alter the Project Site or affect biological resources or CDFW jurisdictional features located within the Project Site. Direct physical effects on sensitive species, habitats, riparian areas, and wetlands under the No Project/No Build Alternative would not occur. Because the No Project/No Build Alternative would not result in any material changes to the Project Site or the resources it contains, no impacts to plans, policies, or regulations protecting biological resources would occur. Although the Project would avoid jurisdictional features, maintain a minimum of 29.5 acres of RAFSS habitat, and reduce impacts to less than significant levels through the implementation of the prescribed mitigation measures, the No Project/No Build Alternative would avoid the Project's potential impacts. Because no impacts to biological resources would occur under the No Project/No Build Alternative, impacts would be less than under the Project.

d. Cultural Resources

No changes to the Project Site would occur under this Alternative. Several building foundations and a dry water reservoir occur in the southeastern corner of the Project Site in the vicinity of the WVWD expansion which could be historic resources. However, these resources are located within PA-4 owned by WVWD. No development associated with the Project would occur in PA-4; therefore, the Project would not impact any historic resources. Thus, similar to the Project, this Alternative would result in no impacts to historic resources.

The Project would mitigate potentially significant impacts to archaeological resources and human remains to less than significant levels through Mitigation Measures CULT-1 to CULT-7. Because no new development would occur under the No Project/No Build Alternative, it would have no impact on potential unknown archaeological resources or human remains. Thus, the No Project/No Build Alternative would have less impact on archaeological resources and human remains than the Project. No paleontological resources occur on the Project Site and, as with the Project, the No Project/No Build Alternative would have no impact with respect to paleontological resources.

e. Greenhouse Gas Emissions

The No Project/No Build Alternative would not contribute new uses to the Project Site and therefore would not result in the direct generation of GHG emissions. The Project's construction and operational activity would result in the short-term and long-term of GHG emissions, as well as comply with the City of Rialto GHG reduction measures and the San Bernardino County Regional Greenhouse Gas Reduction Plan (SBC Reduction Plan). As such, GHG emission impacts would be less under the No Project/No Build Alternative, which would have no impact with respect to GHG emissions.

f. Land Use

Impacts related to land use would be less than significant under the Project. Under the No Project/No Build Alternative, there would be no changes to the land uses on-site. However, the No Project/No Build Alternative would not implement policies of SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) to maximize mobility and accessibility for all people and goods in the region and it would not implement the economic development goals of the General Plan to strengthen and diversify the economic base and employment opportunities, and maintain a positive business climate. The No Project/No Build Alternative would not meet Community Design policies of the General Plan to create distinctive gateways at entry points; create streetscapes to support and enhance the City's image as a desirable place to live, work, shop, and dine; create pedestrian friendly streets; to improve the architectural and design quality of development in Rialto; and meet other goals of the General Plan to enhance the character and quality of the City. Because the No Project/No Build Alternative would not implement the goals of the General Plan to the same extent as the Project, it is considered to have a greater land use impact.

g. Noise

No development would occur within the Project Site under this Alternative. Consequently, it would not generate any new or increased sources of noise or vibration on the Project Site or within the surrounding vicinity due to Project construction or operations. The No Project/No Build Alternative would not result in an increase in traffic to the Project vicinity and would not introduce new noise sources and current noise levels on the property would remain the same as under current conditions. As such, the significant unavoidable noise impacts associated with long-term cumulative traffic noise under the Specific Plan during operations would not occur. Impacts due to Project noise of the No Project/No Build Alternative would be less than those of the Project, as no impacts would occur.

h. Traffic and Circulation

The No Project/No Build Alternative would not result in new development within the Project Site and therefore would not result in any impacts to the transportation system due to construction or operation activities. In contrast, the Project would add trips to regional and local roadways associated with the Site's residential population and employment workforce. The Project would implement a construction traffic management plan to ensure that construction activities accommodate smooth and efficient transportation flow during construction, thus avoiding significant traffic hazard impacts due to construction activities. The Project's daily trips would add trips to the local roadway network and regional transportation system, but potentially significant impacts would be reduced to a less than significant level with implementation of the prescribed mitigation. This Alternative would avoid the less than significant traffic impacts (after mitigation) associated with implementation of the Project. The proposed Project's access and parking facilities would be designed to meet Project needs and would have less than significant impacts. Overall, Impacts of the No Project/No Build Alternative would be less than those of the Project, as no impacts would occur under this Alternative.

3. Relationship of the Alternative to Project Objectives

The No Project/No Build Alternative would not meet the purpose of the Project to create a high-quality development that would serve as an eastern gateway to the City of Rialto (Objective 1). It would not offer retail opportunities or promote the identity of the neighborhood (Objective 1). Unlike the Project, the No Project/No Build Alternative would not create freeway-oriented commercial opportunities or serve regional needs and stimulate job and revenue growth in the City (Objective 2). Other objectives such as meeting the City's current and projected housing needs by allowing a portion of the Project to be developed with multi-family residences (Objective 3) and revitalizing the underutilized Project Site through a predominantly retail development (Objective 6) would not be realized. Because no retail, business park, or residential uses would be constructed, the No Project/No Building Alternative would not create "Green" and sustainable buildings (Objective 4) or allow for development that would be economically feasible and balanced to address both the property owners' and the City's economic concerns (Objective 5). It would not increase the use of the area through pedestrian and bicycle connectivity (Objective 7), or locate and integrate the design of native habitat open space areas into the community by providing permanent open space, or integrate native habitat into the pedestrian experience with interpretive signage (Objective 8). The No Project/No Build Alternative would not provide the opportunity to maximize the use of native plant materials/species in the Project landscaping (Objective 9). **Table 5-3**, *Comparison of Alternatives – Ability to Meet Project Objectives*, below, illustrates the comparative ability of Project Alternatives to meet the Project's nine objectives. As shown, therein, the No Project/No Build Alternative would not meet any of the Project's nine objectives.

B. Alternative 2: Reduced Intensity Alternative

1. Description of the Alternative

The Reduced Intensity Alternative (Alternative 2) would reduce the overall intensity of the Project. If the Residential Overlay were implemented under Alternative 2, this Alternative would also reduce the residential density compared to the Project. Alternative 2 would not provide for the Project's Commercial Overlay option, which would have been located in approximately 6.3 acres of retail uses in the habitat area (PA 7 and PA8). Alternative 2 would allow for a maximum of 316,000 square feet of retail floor area, which represents an approximately 31.6 percent reduction compared to the Project's 462,000 square feet of retail space. Alternative 2 would also allow up to 84,000 square feet of business park floor area, which represents an approximately 32.8 percent reduction in the Project's 125,000 square feet of business park floor area. Under Alternative 2's Residential Overlay option, this Alternative would provide 206 multi-family dwelling units, which represents an approximately 25 percent reduction compared to the Project's 275-unit Residential Overlay. As with the Project, implementation of the Residential Overlay would reduce retail shopping floor area approximately 25 percent (from 462,000 square feet to 346,000 square feet under the Project), for a total of approximately 237,000 square feet of retail space (25 percent of 316,000 square feet).

2. Environmental Impacts

a. Aesthetics/Visual Resources

(1) Views/Scenic Vistas

As with the Project, Alternative 2 would be lower in elevation than off-site public view locations, would have building height limitations, and would be significantly set back from off-site uses and view locations. However, the reduction in overall intensity would allow for more openings (view corridors) across the site. In addition, since the Commercial Overlay would not be developed to the west of Pepper Avenue, buildings within Alternative 2 would be located further from off-site view locations southwest of the Project Site and, thus, allow a broader background view field than under the Project. Although the Project would result in a less than significant view impact, Alternative 2 would cause less change in the existing view field across the site. Therefore, impacts to views and scenic vistas would be less than under Project.

(2) Aesthetics/Visual Character

Under Alternative 2, the Project Site would be developed with retail, business park and potential residential development. Development would require site landscaping, architectural design elements, streetscapes, and other improvements that, as with the Project, would enhance the visual character of the site. With the reduction in development intensity, however, more open space could occur throughout the improved areas and the habitat area would remain unchanged. Although the habitat area does not comprise a distinctive visual attribute, and although it may not be developed under the Project if the Commercial Overlay were not implemented, the non-development of the Commercial Overlay under Alternative 2 would potentially provide for more natural open space than under the Project. Depending on the landscaping or use of open space within the developed area, Alternative 2 could achieve greater aesthetic character than under the Project. However, because the Project also incorporates large areas of habitat open space and the developed area would be entirely developed or landscaped in accordance with the Specific Plan's aesthetic requirements, it is considered to have similar visual character to Alternative 2. Therefore, as with the Project, visual character impacts under Alternative 2 would be less than significant and similar to the Project.

(3) Light and Glare

As with the Project, Alternative 2 would include lighting provided at vehicle entry points and areas of circulation; points of entry into buildings; along the exterior façades of buildings; and other outdoor areas (e.g., parks, paseos, common open space areas) for both architectural highlighting and security purposes. Lighting would be designed (shielded) and strategically placed to minimize glare and light spill onto off-site residential neighborhoods. As with the Project, all lighting would comply with the Specific Plan and Rialto Municipal Code, which under Section 18.61.140, shall not exceed one-half foot-candle at any residential property line or one foot-candle at any nonresidential property line. Commercial building design regulations identified in the proposed Specific Plan would not allow large reflective building surfaces and, as such, glare impacts would be minimal. The design guidelines under the Specific Plan would prevent significant light and glare impacts under both Alternative 2 and the Project. However,

because Alternative 2 would comprise less overall development, light and glare effects would be incrementally less.

b. Air Quality

As with the Project, construction activities associated with Alternative 2 would generate pollutant emissions from the following construction activities: (1) site preparation, grading, and excavation; (2) construction workers traveling to and from Project Site; (3) delivery and hauling of construction supplies to, and debris from, the Project Site; (4) fuel combustion by on-site construction equipment; (5) building construction; application of architectural coatings; and paving. These construction activities would temporarily create emissions of dust, fumes, equipment exhaust, and other air contaminants. The amount of emissions generated on a daily basis would vary, depending on the intensity and types of construction activities occurring simultaneously at the time. Alternative 2 would involve a similar maximum daily intensity of activity during any construction phase due to the concurrent use of equipment in any single phase. Thus, Alternative 2 would result in similar maximum daily construction-period impacts. As with the Project, construction activities under this Alternative would implement mitigation to ensure NOx and $PM_{2.5}$ emissions would be reduced to below SCAQMD's daily significance thresholds, thus resulting in a less than significant impact regarding the violation of an air quality standard and pollutant exposure to sensitive receptors. Although maximum daily air quality impacts would be similar and less than significant (after mitigation) under both the Project and Alternative 2, the duration of construction would be incrementally reduced under Alternative 2 so that overall construction emissions would be less than under the Project.

As discussed in Section 4.B, Air Quality, of this EIR, localized daily operational emissions would not be a significant impact. Alternative 2 would result in approximately 25 percent fewer daily vehicle trips than the Project (see **Table 5-1**, *Alternative 2 Vehicle Trips Compared to Project Vehicle Trips*, below) and, thus, result in fewer mobile emissions than under the Project. As with the Project, mobile emissions during operation would not conflict with or obstruct an applicable air quality plan, violate air quality standards, expose sensitive receptors to substantial pollutant concentrations, or result in objectionable odors. As with the Project, Alternative 2 operational emissions would be less than significant. However, because mobile emissions would be less under Alternative 2, operational air quality impacts would be less than under the Project.

In addition, because the Project and Alternative 2 would not cause objectionable odors affecting substantial numbers of people, similar less than significant impacts regarding objectionable odors would occur.

TABLE 5-1
ALTERNATIVE 2 VEHICLE TRIPS COMPARED TO PROJECT VEHICLE TRIPS

Project		Alternative 2		
Use	**Vehicle Trips**	**Use**	**Change**	**Vehicle Trips**
Retail: 462,000 SF	19,727	Retail: 316,000 SF	-31.6% (-146,000 SF)	13,493
Business Park: 125,000 SF	1,555	Business Park: 84,000 SF	-32.8% (-41,000 SF)	1,045
		Multi-Family Residential: 206 Units	+100% (+206 units)	1,370
Vehicle Trips:	21,282			15,908
10% Pass-by/Local Interaction Reduction	1,973			1,409
Total:	19,309		-25%	14,559

Source: Urban Crossroads Traffic Impact Analysis, 2016.

c. Biological Resources

Both Alternative 2 and the Project would physically alter the Project Site and result in direct and indirect impacts on a special-status plant species, the federal endangered San Bernardino kangaroo rat, and five state (and potentially other) species of special concern. The majority of these species occur within RAFSS habitat. Approximately 6.3 acres of RAFSS habitat could be removed with the potential development of PA-7 and PA-8 under the Project. However, Alternative 2 would not include development in PA-7 and PA-8. Both Alternative 2 and the Project may also result in permanent or temporary impacts to non-wetland jurisdictional features with the development of bridge pilings for the potential pedestrian crossing to Frisbie Park. However, under both the Project and Alternative 2, approximately 29.5 acres of RAFSS habitat and riparian areas contained in PA-9 would be permanently preserved. Mitigation Measures BIO-1 through BIO-9 would address impacts to species, wetlands, and other areas of biological concern and would reduce impacts to biological resources to less than significant levels under both the Project and Alternative 2. Both Alternative 2 and the Project would be consistent with City policies and regulations protecting biological resources and would have less than significant impacts concerning existing plans and policies. Although both the Project and Alternative 2 would reduce potentially significant impacts to biological resources to less than significant levels, because Alternative 2 would not include development within the Commercial Overlay, it would have potentially less impact on biological resources than under the Project.

d. Cultural Resources

Alternative 2 would not include development in PA-7 and PA-8 (the Commercial Overlay – 6.3 acres). On the other hand, the Project could potentially develop the Commercial Overlay area. Potentially significant impacts to previously unknown archaeological and human remains would

be reduced to a less than significant level under both the Project and Alternative 2 with implementation of the prescribed mitigation measures. However, because the area of potential disturbance would be less under Alternative 2, impacts would be less than under the Project.

No paleontological or historic resources occur on the Project Site and, as with the Project, Alternative 2 would have no impact with respect to paleontological and historic resources.

e. Greenhouse Gas Emissions

Alternative 2 would allow for the future development of the Project Site with a mix of urban uses similar to the Project, but at a lower overall intensity. As such, greenhouse gas emissions resulting from construction and operation of future uses would be less than significant similar to the Project, but would be lower relative to the Project. Likewise, impacts related to consistency with GHG reduction plans would be less than significant under this Alternative, as is the case for the Project. Overall, given the reduction in development intensity and associated greenhouse gas emissions, impacts would be less than the Project.

f. Land Use

Although reduced in intensity compared to the Project, Alternative 2 would be consistent with the objectives of SCAG's RTP/SCS to maximize mobility and accessibility for all people and goods in the region and it would implement the economic development would implement the economic development goals of the General Plan to strengthen and diversify the City's economic base and employment opportunities, and to maintain a positive business climate. Alternative 2 would also meet Community Design policies of the General Plan to create distinctive gateways at entry points; create streetscapes to support and enhance the City's image as a desirable place to live, work, shop, and dine; create pedestrian friendly streets; improve the architectural and design quality of development in Rialto; and meet other goals of the General Plan to enhance the character and quality of the City. Although Alternative 2 would implement the goals of the General Plan, because of the reduction in overall development, it would not achieve the same level in meeting the City's economic goals as under the Project. Nonetheless, because Alternative 2 would be generally consistent with the general objectives and policies of the General Plan, land use impacts are considered similar to the Project and less than significant.

g. Noise

This Alternative would result in the future construction and operation of a mix of urban uses on the Project Site, but at a lower intensity than under the Project. Despite the proximity of existing noise-sensitive uses (e.g., residences) near the Project Site, Alternative 2 would require a similar level of daily construction activity as under the Project and, as such, result in similar maximum daily construction noise levels/impacts. Thus, construction-related noise would result in less than significant impacts regarding violation of established noise standards and temporary or periodic noise increases in the Project area, similar to the Project. As is the case for the Project, groundborne noise and vibration levels would not exceed established thresholds and therefore impacts would be less than significant in this regard. Although maximum daily noise and vibration impacts would be similar and less than significant (after mitigation) under both the

Project and Alternative 2, the duration of construction would be incrementally reduced under Alternative 2 so that overall construction noise and vibration impacts would be less than under the Project.

As with the Project, noise impacts under Alternative 2 from operational on-site stationary noise sources would be less than significant and similar to the Project. With less traffic generated under this Alternative, traffic-related noise would be less under this Alternative than under the Project. Nonetheless, given the future level of operational traffic in the area, due to both ambient growth and project-related growth under this Alternative, mobile-source noise sources would contribute to significant unavoidable impacts associated with permanent noise level increases along area streets as would the Project. Although, the cumulative mobile source noise contribution would be less under this Alternative than under the Project.

h. Traffic and Circulation

Alternative 2 would reduce the number of vehicle trips generated by the Project. As shown in **Table 5-1**, Alternative 2 would generate approximately 14,559 trips per day compared to the Project's approximately 19,309 trips per day. This represents a reduction of approximately 25 percent in total vehicle trips per day and an incremental reduction in the Project's contribution to cumulative traffic in the area. As discussed in Section 4.H, Traffic and Transportation, however, with implementation of Mitigation Measure TRAF-1, the Project would not exceed threshold standards regarding Project-induced or cumulative traffic relative to the operation of the study area's roadways and intersections. Mitigation includes contribution to the City's Development Impact Fee (DIF) program or other fair share programs, which fund off-site improvements for long-range conditions. As with the Project, Alternative 2 would be required to contribute to the DIF or other fair share programs, contribution to which is determined by the City. As with the Project, with the implementation of Mitigation Measure TRAF-1, impacts with respect to Project-generated and cumulative trip generation would be less than significant. In addition, because Alternative 2 would incrementally reduce traffic compared to the Project's less than significant traffic impacts related to congestion management programs, traffic hazards, emergency access, and plan and policy consistency, impacts related to these issues would be also be less than significant under Alternative 2. However, because Alternative 2 would reduce the Project's traffic by approximately 25 percent, traffic impacts would be less overall than under the Project.

3. Relationship of the Alternative to Project Objectives

Alternative 2 would substantially meet the purpose of the Project to create a high-quality development that would serve as an eastern gateway to the City of Rialto (Objective 1). It would offer retail opportunities or promote the identity of the neighborhood (Objective 1). Alternative 2 would also create freeway-oriented commercial opportunities intended or serve regional needs and stimulate job and revenue growth in the City (Objective 2). However, because of reduced scale, it would not meet regional needs and generate revenue to the same extent of the Project and would be only partially consistent with this objective. Alternative 2 would be consistent with the Specific Plan's objectives to meet the City's current and projected housing needs by allowing a portion of the Project to be developed with multi-family residences (Objective 3) and to revitalize the underutilized Project Site through a strong retail component (Objective 6). Alternative 2

would create "Green" and sustainable buildings (Objective 4) and allow for development that would be economically feasible and balanced to address both the property owners' and the City's economic concerns (Objective 5). Again, because of reduced scale it would likely not generate the same revenue to the City as under the Project and, thus, would not meet the City's economic concerns under Objective 5 to the same as the Project. It would increase the use of the area by encouraging pedestrian and bicycle connectivity (Objective 7), and locate and integrate the design of native habitat open space areas into the community by providing provide permanent open space, and integrate it into the pedestrian experience with interpretive signage (Objective 8). Alternative 3 would also provide the opportunity to maximize the use of native plant materials/species in the Project landscaping (Objective 9). **Table 5-3**, *Comparison of Alternatives – Ability to Meet Project Objectives*, below, illustrates the comparative ability of Project Alternatives to meet the Project's nine objectives. As shown therein, Alternative 2 would fully meet seven of the Project's nine objectives and partially meet two of the Project's nine objectives.

C. Alternative 3: Existing Zoning Map Alternative

1. Description of the Alternative

The Existing Zoning Map Alternative (Alternative 3) would allow for the build-out of the 101.7-acre Project Site per the City's existing Zoning Map. Alternative 3 would allow for development of 276 single-family residences with a minimum lot size of 8,400 square feet and the development of up to 185,000 square feet of light industrial business park uses. This represents a generally equivalent number of residential units as under the Project, which would allow 275 residential units under the Residential Overlay, except that Alternative 3 would provide single-family uses rather than multi-family uses as under the Project. The business park floor area represents an approximately 45 percent increase compared to 125,000 square feet allowed under the Project. The business park uses would be confined to the northwest quadrant of the Project Site. This area is designated "General Industrial" in the City of Rialto General Plan and is shown as "Commercial Manufacturing" (C-M) in the City's Zoning map. However, the land use and zoning designations shown on the City's current Zoning and General Plan Land Use Maps were not officially adopted by the City, so that the true zoning over the site is R-1A, as described in Chapter 2, Project Description, of this EIR. Nonetheless, for purposes of this Alternatives analysis, the zoning for the Project Site as presented on the City's Zoning Map is analyzed herein. No retail uses would be developed under this Alternative. Alternative 3 would include development over the entire Project Site, including the habitat area in the western portion of the Site.

2. Environmental Impacts

a. Aesthetics/Visual Resources

(1) Views/Scenic Vistas

Alternative 3 would reduce the overall intensity of development across the Project Site. The resulting development would be suburban or low-rise industrial park in character with large residential lots. Development would be allowed in all of the habitat area to the west of Pepper

Avenue. As such, Alternative 3 would not create deep setbacks between the future development and existing residential neighborhoods to the west and south, as under the Project. As such, development would be closer to the public view locations than under the Project and could impact long range views over the Project Site to a greater degree than the Project. Views under Alternative 3 would still be available through open spaces if clustering is provided and view impacts would be less than significant. Although view impacts would be less than significant under both the Project and Alternative 3, despite the decreased intensity, view impacts would be incrementally greater under Alternative 3 due to the expanded area of potential development.

(2) Aesthetics/Visual Character

Under Alternative 3, the entire Project Site, including the habitat area would be developed with light industrial business park and single-family residential uses. Development would meet the residential building design requirements under Municipal Code Section 18.61.040, which require that residential dwellings to be arranged in a manner that creates a harmonious, varied appearance of building heights and setbacks, and with Section 18.61.070, in which building design must respect the predominant characteristics of neighborhood development, such as height, massing, setbacks, materials and architectural style. Streets would be landscaped according to City standards. The visual character of development would be attractive. However, street scape amenities, the "main street" aesthetic and other aesthetic benefits under the Project's Design Guidelines component would not be provided. Also, with development allowed in all of the habitat area, the setbacks from existing off-site public streets and residential neighborhoods achieved under the Project would not be provided. The development of the northwest quadrant with a business park in proximity to Frisbie Park, an area that would primarily be open space under the Project, would reduce the visual character of Alternative 3 compared to the Project. Therefore, as with the Project, visual character impacts under Alternative 2 would be less than significant but greater than under the Project.

(3) Light and Glare

The character of Alternative 3 would be that of a suburban neighborhood and business park, in which lighting would occur from vehicles, street lights, and exterior security and landscape lighting. With development spread over the Project Site, there would be no pockets of intense lighting or glare, although security lighting would be greatest in the business park area. Alternative 3 would include very limited illuminated signage and no signs along the freeway. Because Alternative 3 would be primarily residential in nature (occupy a larger expanse of the Project Site), it would generate less light or night glow than the Project. Although light and glare impacts would be less than significant under the Project, impacts under Alternative 3 would be incrementally less than under the Project.

b. Air Quality

As with the Project, construction activities associated with Alternative 3 would generate pollutant emissions from the following construction activities: (1) site preparation, grading, and excavation; (2) construction workers traveling to and from Project Site; (3) delivery and hauling of construction supplies to, and debris from, the Project Site; (4) fuel combustion by on-site construction equipment; (5) building construction; application of architectural coatings; and

paving. These construction activities would temporarily create emissions of dust, fumes, equipment exhaust, and other air contaminants. The amount of emissions generated on a daily basis would vary, depending on the intensity and types of construction activities occurring simultaneously at the time. Alternative 2 would involve a similar maximum daily intensity of activity during any construction phase due to the concurrent use of equipment in any single phase. Thus, Alternative 3 would result in similar maximum daily construction-period impacts. As with the Project, construction activities under this Alternative would implement mitigation to ensure NOx and $PM_{2.5}$ emissions would be reduced to below SCAQMD's daily significance thresholds, thus resulting in a less than significant impact regarding the violation of an air quality standard and pollutant exposure to sensitive receptors. With a lower development intensity and larger development footprint area under Alternative 3, the overall construction duration and extent of construction activities would be expected to be relatively similar to the Project. Thus, overall construction emissions would be similar to the Project.

As discussed in Section 4.B, Air Quality, of this EIR, localized daily operational emissions would not result in a significant impact. Alternative 3 would result in approximately 75 percent fewer daily vehicle trips than the Project (see **Table 5-2**, *Alternative 3 Vehicle Trips Compared to Project Vehicle Trips*, below) and, thus, result in substantially fewer mobile emissions than under the Project. As with the Project, mobile emissions during operation would not conflict with or obstruct an applicable air quality plan, violate air quality standards, expose sensitive receptors to substantial pollutant concentrations, or result in objectionable odors. As with the Project, Alternative 2 operational emissions would be less than significant. However, because mobile emissions would be substantially less under Alternative 3, operational impacts would be less.

In addition, because the Project and Alternative 3 would not cause objectionable odors affecting substantial numbers of people, similar less than significant impacts regarding objectionable odors would occur.

c. Biological Resources

Alternative 3 would result in development throughout the Project Site, including the development within the RASFF habitat area. Both Alternative 3 and the Project would physically alter the Project Site and result in direct and indirect impacts on a special-status plant species, the federal endangered San Bernardino kangaroo rat, and five state species of special concern. The majority of these species occur within RAFSS habitat. However, under the Project approximately 29.5 acres of RAFSS habitat and riparian areas contained in PA-9 would be permanently preserved. In addition, approximately 6.3 acres would potentially be preserved in PA-7 and PA-7 if the Community Commercial Overlay were not developed under the Project. Under both the Project and Alternative 3, Mitigation Measures BIO-1 through BIO-9 would address impacts to species, wetlands, and other areas of biological concern. However, implementation of mitigation measures could be more difficult under Alternative 3 without the permanent protection of a large area of RAFSS habitat. Alternative 3 would also not meet policies of the General Plan (e.g., Policy 2-23-2) to pursue open space, wildlife corridors, or conservation easements to protect sensitive species and their habitats, to the same extent as under the Project. Although both the Project and Alternative 3 would implement mitigation measures, because of the extent of

development across the Project Site under Alternative 3, it would have a potentially significant and unavoidable impact on biological resources if mitigation measures were not fully implemented. As such, impacts on biological resources would be greater than under the Project.

d. Cultural Resources

The development of Alternative 3 would involve the entire Project Site and would not provide for 29.5 acres of open space, as under the Project. In addition, an additional 6.3 acres would potentially be preserved in PA-7 and PA-7 if the Community Commercial Overlay were not developed under the Project. Potentially significant impacts to previously unknown archaeological resources and human remains would be reduced to a less than significant level under both the Project and Alternative 3 with implementation of the prescribed mitigation measures. However, because the area of potential disturbance would be greater under Alternative 3, impacts would be greater than under the Project.

No paleontological or historic resources occur on the Project Site and, as with the Project, Alternative 3 would have no impact with respect to paleontological and historic resources.

e. Greenhouse Gas Emissions

With a lower development intensity and larger development footprint area under Alternative 3, the overall construction duration and extent of construction activities would be expected to be relatively similar to the Project. Thus, overall GHG construction emissions would be similar to or not less than under the Project. Impacts related to consistency with GHG reduction plans would be less than significant under this Alternative, as is the case for the Project. Because of the reduction in overall development intensity associated with a predominately residential land use and lower long-term traffic compared to the Project, associated long-term and overall greenhouse gas emissions would be less under Alternative 3 than under the Project.

f. Land Use

Under Alternative 3, the land use characteristics of the Project as a retail-centered, business park and pedestrian-friendly use available to the community and region would not be implemented. Although the business park component would be expanded, the primary focus of Alternative 3 is that of a residential use. Although Alternative 3 would be consistent with designated uses and zoning on the property, it would not be consistent with the objectives of SCAG's RTP/SCS to maximize mobility and accessibility for all people and goods in the region or implement the economic development goals of the General Plan to strengthen and diversify the City's economic base and employment opportunities to the same extent as the Project. Alternative 3 would not meet Community Design policies of the General Plan to create distinctive gateways at entry points; create streetscapes to support and enhance the City's image as a desirable place to live, work, shop, and dine; or meet other goals of the General Plan to enhance the character and quality of the City. Nonetheless, because Alternative 3 would be consistent with the City's preliminary zoning and land use maps (designations shown on the City's Zoning and General Plan Land Use Maps, but not formally adopted), it would have a less than significant impact related to land use

with impacts being similar to the Project in consideration of the overall inconsistencies and consistencies with applicable land use policies and designations.

g. Noise

Alternative 3 would result in the future construction and operation of a mix of urban uses on the Project Site. With a lower development intensity and larger development footprint, the overall construction duration and extent of construction activities would be expected to be relatively similar to the Project. However, in consideration of the proximity of existing noise-sensitive uses (e.g., residences) near the Project Site and with construction activities occurring over the entire Site, particularly within the RAFSS habitat, Alternative 3 is anticipated to result in greater maximum daily construction noise and vibration levels/impacts to nearby noise sensitive receptors (i.e., residential uses). Construction activities would occur within the City's permitted hours under both the Project and Alternative 3 and thus resulting in less than significant impacts. Nonetheless, because maximum daily noise levels could be higher under Alterative 3 than the Project, construction noise impacts are considered greater under this Alternative. As is the case for the Project, groundborne noise and vibration levels under Alternative would not exceed established thresholds and therefore impacts would be less than significant in this regard. However, vibration impacts are considered greater because of the closer proximity of construction activities to adjacent vibration sensitive receptors.

As with the Project, noise impacts under Alternative 3 from operational on-site stationary noise sources would be less than significant and similar to the Project. With less traffic generated under this Alternative, traffic-related noise would be less under this Alternative than under the Project. Nonetheless, given the future level of operational traffic in the area, due to both ambient growth and project-related growth under this Alternative, mobile-source noise sources would contribute to significant unavoidable impacts associated with permanent noise level increases along area streets as would the Project. Although, the cumulative mobile source noise contribution would be less under this Alternative than under the Project.

h. Traffic and Circulation

Alternative 3 would substantially reduce the number of vehicle trips generated by the Project. As shown in **Table 5-2**, Alternative 3 would generate approximately 4,929 trips per day, compared to the Project's approximately 19,309 trips per day. This represents a reduction of approximately 75 percent in total vehicle trips per day, which would be a substantial reduction in the Project's contribution to cumulative traffic in the area. As discussed in Section 4.H, Traffic and Transportation, however, with implementation of Mitigation Measure TRAF-1, the Project would not exceed threshold standards regarding Project-induced or cumulative traffic relative to the operation of the study area's roadways and intersections. Mitigation includes contribution to the City's Development Impact Fee (DIF) program or other fair share programs, which fund off-site improvements for long-range conditions. As with the Project, Alternative 3 may be required to contribute to the DIF or other fair share programs, contribution to which is determined by the City. As with the Project, with the implementation of Mitigation Measure TRAF-1, impacts with respect to Project-generated and cumulative trip generation would be less than significant. In addition, because Alternative 3 would substantially reduce traffic compared to the Project's less

than significant traffic impacts related to congestion management programs, traffic hazards, emergency access, and plan and policy consistency, impacts related to these issues would be also be less than significant under Alternative 3. However, because Alternative 3 would reduce the Project's traffic by approximately 75 percent, traffic impacts would be less overall than under the Project.

TABLE 5-2
ALTERNATIVE 3 VEHICLE TRIPS COMPARED TO PROJECT VEHICLE TRIPS

Project		Alternative 2		
Use	**Vehicle Trips**	**Use**	**Change**	**Vehicle Trips**
Retail: 462,000 SF	19,727	No Retail	-100% (-462,000 SF)	0
Business Park: 125,000 SF	1,555	Business Park: 185,000 SF	+48% (+60,000 SF)	2,301
		Single-Family Residential: 276 Units (9.52xUnit)	+100%(+276 units)	2,628
Gross Total	21,282			4,929
10% Pass-by/Local Interaction Reduction	1,973			0 [a]
Net Total	19,309		-75%	4,929

[a] Pass-by/Local Interaction Reduction would not be applicable.
Source of Project Trips: Urban Crossroads, Pepper Avenue Specific Plan, Traffic Impact Analysis, Table 4-2, January 2016.

3. Relationship of the Alternative to Project Objectives

Alternative 3 would partially meet the purpose of the Project to create a high-quality development. However, it would not meet the objective of the Project to provide an eastern gateway to the City of Rialto (Objective 1). It would not offer retail opportunities or promote the identity of the neighborhood (Objective 1). Alternative 3 would also not provide for freeway-oriented commercial opportunities or serve regional needs and stimulate job and revenue growth in the City (Objective 2). It would, however, be consistent with the Specific Plan's objectives to meet the City's current and projected housing needs by providing for 276 single-family residences (Objective 3). It is expected that business park and residential development under Alternative 3 would meet the City's "Green" and sustainable buildings standards (Objective 4). Alternative 3 would partially meet the objective to create economically feasible and balanced development to address both the property owners' and the City's economic concerns (Objective 5). However, Alternative 3 would not revitalize the underutilized Project Site through a strong retail component (Objective 6). With a mix of uses, including residential uses, Alternative 3 would increase the use of the area internally and externally by encouraging pedestrian and bicycle connectivity (Objective 7). Alternative 3 would not locate or integrate the design of native habitat open space areas into the community by providing permanent open space or a pedestrian bridge that would serves as a link between Frisbie Park and residential uses to the west (Objective 8). It

would not integrate native habitat into the pedestrian experience with interpretive signage (Objective 8). With certain development conditions, Alternative 3 could provide the opportunity to use native plant materials/species in the landscaping (Objective 9). However, because native habitat would not be preserved, and development would occur throughout the site, Alternative 3 would not maximize the use of native plant materials/species in areas located in proximity to preserved native habitat. **Table 5-3**, *Comparison of Alternatives – Ability to Meet Project Objectives*, below, illustrates the comparative ability of Project Alternatives to meet the Project's nine objectives. As shown therein, Alternative 3 would meet three of the Project's nine objectives, partially meet one of the nine objectives, and not meet five of the Project's nine objectives.

D. Environmentally Superior Alternative

Section 15126.6(e)(2) of the State CEQA Guidelines indicates that an analysis of alternatives to a proposed project shall identify an environmentally superior alternative among the alternatives evaluated in an EIR and that if the No Project Alternative is the environmentally superior alternative, the EIR shall identify another environmentally superior alternative among the remaining. With respect to identifying an Environmentally Superior Alternative among those analyzed in this Draft EIR, the range of feasible Alternatives includes the No Project/No Build Alternative (Alternative 1), Reduced Intensity Alternative (Alternative 2), and the Existing Zoning Map Alternative (Alternative 3).

A comparative summary of the environmental impacts anticipated under each Alternative to the environmental impacts associated with the Project is provided in **Table 5-4**, *Comparison of Impacts*, below, based on the evaluation of the potential impacts associated with each Alternative. Pursuant to Section 15126.6(c) of the State CEQA Guidelines, the analysis below addresses the ability of the Alternatives to "avoid or substantially lessen one or more of the significant effects" of the Project.

As discussed above, and as shown in Table 5-4, the No Project/No Build Alternative is considered the overall environmentally superior Alternative as it would not generate the Project's light and glare, air quality, biological resources, archaeological, GHG emissions, construction noise, and traffic impacts, as well as the Project's significant and unavoidable cumulative traffic noise impacts. Because the No Project/No Build Alternative would not implement the Specific Plan, it would not achieve the visual character benefits of the Project. In addition, it would not result in several primary beneficial aspects of the Project with respect to the objectives of the General Plan. As such, it is deemed to have greater impacts than the Project with respect to visual character and land use. In addition, the No Project/No Build Alternative would not meet any of the objectives of the Specific Plan, as outlined in Table 5-3, above.

TABLE 5-3
COMPARISON OF ALTERNATIVES – ABILITY TO MEET PROJECT OBJECTIVES

Objective	Alternative 1 No Project/No Build			Alternative 2 Reduced Intensity			Alternative 3 Existing Zoning Map		
	Yes	Partial	No	Yes	Partial	No	Yes	Partial	No
1. Provide an eastern gateway to the City of Rialto that offers new and exciting retail opportunities and promotes the identity of the North End (Pepper Avenue) neighborhood.			X	X					X
2. Provide freeway-oriented commercial opportunities to serve regional needs and stimulate job and revenue growth in the City.			X		X				X
3. Address the City of Rialto's current and projected housing needs by allowing a portion of the Project to be developed with multi-family residences.			X	X					X
4. Incorporate "Green" and sustainable practices, as practicable, in developing buildings and infrastructure.			X	X			X		
5. Undertake development of the Project Site in a manner that is economically feasible and balanced to address both the property owners' and the City's economic concerns.			X		X			X	
6. Revitalize the underutilized Project Site through the implementation of a predominantly retail development that will service the surrounding existing residential communities.			X	X					X
7. Encourage pedestrian and bicycle connectivity.			X	X			X		
8. Locate and integrate the design of native habitat open space areas into the community, such as providing a pedestrian bridge inclusive of interpretive signage that connects the development area with the adjacent Frisbie Park.			X	X					X
9. Maximize the use of native plant materials/species in the Project landscaping, especially in areas located in proximity to preserved native habitat.			X	X				X	
Objectives Score	**0**	**0**	**9**	**7**	**2**	**0**	**2**	**2**	**5**

TABLE 5-4
COMPARISON OF IMPACTS

Project Impact		Alternative 1: No Project/No Build	Alternative 2: Reduced Intensity	Alternative 3: Existing Zoning
A. Aesthetics/Visual Resources				
Views/Scenic Vistas	Less Than Significant	Less (Less than Significant Impact)	Less (Less Than Significant)	Greater (Less Than Significant)
Aesthetics/Visual Character	Less Than Significant	Greater (No Impact)	Similar (Less Than Significant)	Greater (Less Than Significant)
Light and Glare	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)
B. Air Quality				
Construction-Related Emissions				
Conflict with or obstruct an applicable air quality plan	Less Than Significant	Less (No Impact)	Similar (Less Than Significant)	Similar (Less Than Significant)
Violate air quality standards	Less Than Significant w/mitigation	Less (No Impact)	Less (Less Than Significant)	Similar (Less Than Significant)
Cause a cumulatively considerable net increase in criteria pollutants	Less Than Significant w/mitigation	Less (No Impact)	Less (Less Than Significant)	Similar (Less Than Significant)
Expose sensitive receptors to substantial pollutant concentrations	Less Than Significant w/mitigation	Less (No Impact)	Less (Less Than Significant)	Similar (Less Than Significant)
Cause objectionable odors affecting substantial numbers of people	Less Than Significant	Less (No Impact)	Similar (Less Than Significant)	Similar (Less Than Significant)
Operational Emissions				
Conflict with or obstruct an applicable air quality plan	Less Than Significant	Less (No Impact)	Less (Less than Significant)	Less (Less than Significant)
Violate air quality standards	Less Than Significant	Less (No Impact)	Less (Less than Significant)	Less (Less than Significant)
Cause a cumulatively considerable net increase in criteria pollutants	Less Than Significant	Less (No Impact)	Less (Less than Significant)	Less (Less than Significant)
Conflict with or obstruct an applicable air quality plan	Less than Significant	Less (No Impact)	Less (Less than Significant)	Less (Less than Significant)
Cause objectionable odors affecting substantial numbers of people	Less Than Significant	Less (No Impact)	Similar (Less than Significant)	Similar (Less than Significant)
C. Biological Resources				
Sensitive Species	Less Than Significant w/ Mitigation	Less (No Impact)	Less (Less Than Significant w/ Mitigation)	Greater (Potentially Significant and Unavoidable)

Project Impact		Alternative 1: No Project/No Build	Alternative 2: Reduced Intensity	Alternative 3: Existing Zoning
Riparian Habitat	Less Than Significant w/ Mitigation	Less (No Impact)	Similar (Less Than Significant w/ Mitigation)	Greater (Less Than Significant w/ Mitigation)
Wetlands	Less Than Significant w/ Mitigation	Less (No Impact)	Similar (Less Than Significant w/ Mitigation)	Greater (Less Than Significant w/ Mitigation)
Wildlife Movement	Less Than Significant w/ Mitigation	Less (No Impact)	Similar (Less Than Significant w/ Mitigation)	Greater (Potentially Significant and Unavoidable)
Regulatory Consistency	Less than Significant	Less (No Impact)	Similar (Less Than Significant)	Greater (Potentially Significant and Unavoidable)
Habitat Conservation Plans/ Natural Community Conservation Plans	No Impact (not applicable)	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)
D. Cultural Resources				
Historic Resources	No Impact	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)
Archaeological Resources	Less Than Significant w/ Mitigation	Less (No Impact)	Less (Less Than Significant w/ Mitigation)	Greater (Less Than Significant w/ Mitigation)
Paleontological Resources	No Impact	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)
Human Remains	Less Than Significant w/ Mitigation	Less (No Impact)	Less (Less Than Significant w/ Mitigation)	Greater (Less Than Significant w/ Mitigation)
E. Greenhouse Gas Emissions				
Greenhouse Gas Emissions	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)
Consistency with GHG Reduction Plans	Less Than Significant	Less (No Impact)	Similar (Less Than Significant)	Similar (Less Than Significant)
F. Land Use				
Consistency with Plans, Policies, and Regulations	Less Than Significant	Greater - No Beneficial Impact (No Impact)	Similar (Less Than Significant)	Similar (Less Than Significant)
G. Noise				
Construction Noise	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Greater (Less Than Significant)
Construction Vibration	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Greater (Less Than Significant)
Operational Stationary Source Noise	Less Than Significant	Less (No Impact)	Similar (Less Than Significant)	Similar (Less Than Significant)
Operational Traffic Noise	Significant & Unavoidable Cumulative Impact	Less (No Impact)	Less (Significant & Unavoidable Cumulative Impact)	Less (Significant & Unavoidable Cumulative Impact)

Project Impact		Alternative 1: No Project/No Build	Alternative 2: Reduced Intensity	Alternative 3: Existing Zoning
H. Transportation/Traffic				
Traffic System Level of Service	Less than Significant w/Mitigation	Less (No Impact)	Less (Less Than Significant w/ Mitigation)	Less (Less Than Significant w/ Mitigation)
Congestion Management Program Facilities	Less Than Significant	Less (No Impact)	Less (Less Than Significant w/ Mitigation)	Less (Less Than Significant w/ Mitigation)
Site Access and Traffic Safety	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)
Emergency Access	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)

Source: ESAPCR, 2016.

As discussed above, and as shown in Table 5-4, the No Project/No Build Alternative is considered the overall environmentally superior Alternative as it would not generate the Project's light and glare, air quality, biological resources, archaeological, GHG emissions, construction noise, and traffic impacts, as well as the Project's significant and unavoidable cumulative traffic noise impacts. Because the No Project/No Build Alternative would not implement the Specific Plan, it would not achieve the visual character benefits of the Project. In addition, it would not result in several primary beneficial aspects of the Project with respect to the objectives of the General Plan. As such, it is deemed to have greater impacts than the Project with respect to visual character and land use. In addition, the No Project/No Build Alternative would not meet any of the objectives of the Specific Plan, as outlined in Table 5-3, above.

Based on Table 5-3, the Reduced Intensity Alternative (Alternative 2) would substantially meet the objectives of the Project, although, because of reduced scale it would not likely generate the same revenue to the City as under the Project and, thus, would not meet the objectives of the Specific Plan increase income and revenue. However, as shown in Table 5-4, Alternative 2 would incrementally reduce the Project's less than significant light and glare, construction and operational air quality, biological resources, cultural resources, GHG emissions, operational noise, and traffic impacts. It would result in similar to the Project impact levels related to aesthetics, land use, and construction activities (construction noise, air quality, and GHG emissions). As with the Project, operational noise impacts associated with cumulative traffic would be significant and unavoidable.

As also shown in Table 5-4, the Existing Zoning Map Alternative (Alternative 3) would substantially reduce daily vehicle trips and reduce the Project's operational air quality, GHG emissions, and traffic impacts. However, because Alternative 3 would involve full coverage of the Project Site, it would result in greater impacts than the Project with respect to aesthetics, biological resources, cultural resources, and construction noise. As with the Project, operational noise impacts associated with cumulative traffic would be significant and unavoidable, but would occur at lesser contribution under Alternative 3. As shown in Table 5-3, Alternative 3 would not

meet the objectives of the Project to the same extent as Alternative 2. Because Alternative 3 would not adequately meet the objectives of the Project and would generate certain impacts that would be greater than under the Project, it would not be considered environmentally superior to Alternative 2. Therefore, in accordance with the State *CEQA Guidelines* requirement to identify an environmentally superior alternative other than the No Project Alternative, a comparative evaluation of the remaining alternatives indicates that the Reduced Intensity Alternative (Alternative 2) would be the Environmentally Superior Alternative. While the Reduced Intensity Alternative is identified as the Environmentally Superior Alternative in this EIR, this does not mean it is selected as the Project by the City. The City will consider the analysis included within this EIR along with public input throughout the environmental review process in their decision-making process to approve the Project.

CHAPTER 6
Other CEQA Considerations

This section summarizes the findings with respect to irreversible environmental changes; significant unavoidable environmental impacts; reasons why the Project is being proposed, notwithstanding significant unavoidable impacts; potential secondary effects related to Project mitigation; growth inducing impacts; energy conservation, and effects found to be less than significant.

A. Irreversible Environmental Changes

According to Sections 15126(c) and 15126.2(c) of the CEQA Guidelines, an EIR is required to address any significant irreversible environmental changes that would occur if the Project were implemented. As stated in CEQA Guidelines Section 15126.2(c):

> *[u]ses of nonrenewable resources during the initial and continued phases of the Project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter likely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the Project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.*

The Project would consume limited, slowly renewable and non-renewable resources. This consumption would occur during the active construction of retail, business park, and potential multi-family uses, a potential pedestrian bridge, side streets and driveways, and other supporting infrastructure facilities. The use of slowly renewable or non-renewable resources would continue throughout the operational lifetime of these uses. Project development would require a commitment of resources that would include: (1) building materials, (2) fuel and operational materials/resources, and (3) the transportation of goods and people to and from the developed sites. Project construction would require the consumption of resources that are non-replenishable or may renew so slowly as to be considered non-renewable. These resources would include the following construction supplies: certain types of lumber and other forest products; aggregate materials used in concrete and asphalt such as sand, gravel and stone; metals such as steel, copper, and lead; petrochemical construction materials such as plastics; and water. Furthermore, nonrenewable fossil fuels such as gasoline and oil would also be consumed in the use of construction vehicles and equipment, as well as the transportation of goods and people to and from the sites.

Operation of new retail and business park and potential multi-family development would create an incremental increase in demand for nonrenewable resources compared to those currently consumed within the City of Rialto. These include energy resources such as electricity and natural gas, petroleum-based fuels required for vehicle-trips, fossil fuels, and water. Fossil fuels would represent the primary energy source associated with both construction and ongoing operation of the future development, and the existing, finite supplies of these natural resources would be incrementally reduced. Energy requirements associated with new development would nonetheless represent a commitment of essentially non-renewable resources.

At the same time, the Specific Plan would contribute to a land use pattern and mix of uses that would reduce vehicle trips by allowing pass-by and local interaction. The Specific Plan would also encourage bicycle and pedestrian activity that would reduce reliance on the automobile. By promoting pedestrian activity and interaction, as well as closer access to services for the surrounding residential neighborhoods, the Specific Plan would contribute to a land use pattern that is considered to reduce the consumption of non-renewable resources.

Continued use of such non-renewable resources would be on a relatively small scale and consistent with regional and local growth forecasts in the area, as well as State and local goals for reductions in the consumption of such resources. The area affected by the Specific Plan contains no energy resources that would be precluded from future use through Project implementation. As such, although irreversible environmental changes would result from the Project, such changes would not be considered significant.

B. Significant Unavoidable Impacts

Section 15126.2(b) of the State CEQA Guidelines requires that an EIR describe significant environmental impacts that cannot be avoided, including those effects that can be mitigated but not reduced to a less than significant level. As described in Chapter 4, Environmental Impact Analysis, the Specific Plan would contribute to long-term operational traffic noise cumulative impacts. Specifically, cumulative off-site traffic-related noise impacts would be significant and unavoidable for the existing residential uses in the surrounding area since no additional mitigation measures would be feasible (i.e., sound walls) along the existing roadways.

C. Reasons Why the Project Is Being Proposed, Notwithstanding Significant Unavoidable Impacts

In addition to identification of the Project's significant unavoidable impacts, Section 15126.2(b) of the State CEQA Guidelines also requires a description of the reasons why a Project is being proposed, notwithstanding significant unavoidable impacts associated with the Project.

The Project is being proposed notwithstanding the Project's contribution to significant and unavoidable cumulative traffic noise impacts in order to implement several vision statement principles of the General Plan, including attracting high-quality new development, improving the physical environment, and maintaining Rialto's healthy and diverse economic environment. The

Project would generate benefits to the City by providing an eastern gateway to the City of Rialto that offers new and exciting retail opportunities and promotes the identity of the North End (Pepper Avenue) neighborhood. The Project would provide freeway-oriented commercial opportunities to serve regional needs and stimulate job and revenue growth in the City. The Project would incorporate "Green" and sustainable practices, as practicable, in developing buildings and infrastructure. Under the Specific Plan, development would be undertaken in a manner that is economically feasible and balanced to address both the property owners' and the City's economic concerns. The Project would revitalize the underutilized Project Site through the implementation of a predominantly retail development that will service the surrounding existing residential communities. The proximity of the retail center to the existing residential neighborhoods would encourage pedestrian and bicycle connectivity. In addition, if the residential option is implemented, the Project would help to address the City of Rialto's current and projected housing needs by allowing a portion of the Project to be developed with multi-family residences.

Because high quality retail development and a healthy and diverse economic environment is encouraged as a primary vision component of the General Plan, the Specific Plan provides a means to ensure quality development consistent with the goals and policies of the General Plan and comprehensive planning that provided for the orderly development of the site in relation to its surroundings. The Specific Plan is intended to ensure appropriate phasing and financing for community facilities, including circulation and streetscape improvements, domestic water, urban runoff and flood control facilities, sewage disposal facilities, educational facilities, and parks. The Project would establish development regulations that permit a variety of non-residential uses, protect natural habitat, provide a potential connection to Frisbie Park, create gateway elements, and allow the flexibility for multi-family residential to be developed. The Specific Plan also represents a plan that is economically feasible and that can be implemented based on existing and anticipated future economic conditions and it is expected that the Plan would provide for the creation of an exciting, energetic, cohesive development that establishes a strong "sense of place."

D. Potential Secondary Effects Related to Project Mitigation

Section 15126.4(a)(1)(D) of the CEQA Guidelines requires mitigation measures to be discussed in less detail than the significant effects of the proposed Project if the mitigation measure(s) would cause one or more significant effects in addition to those that would be caused by the Project as proposed. With regard to this section of the CEQA Guidelines, the proposed Project mitigation measures that could cause potential impacts were evaluated. The following provides a discussion of the potential secondary effects that could occur as a result of the implementation of the Project mitigation measures. For the reasons stated below, it is concluded that the Project's mitigation measures would not result in significant secondary impacts.

1. Aesthetics/Visual Resources

Impacts regarding aesthetics and visual resources are less than significant and no mitigation measures are required. Therefore, no secondary impacts would occur due to the implementation of mitigation measures for this environmental topic.

2. Air Quality

Mitigation Measure AQ-1 requires that Project construction practices be carried out in a manner that reduces the level of air quality emissions. As such, these mitigation measures would directly reduce environmental impacts of the Project and would not result in secondary impacts for its implementation.

3. Biological Resources

Mitigation Measure BIO-1 would minimize temporary direct and indirect impacts to special-status plant and animal wildlife species by controlling construction activities and use of pesticides. Mitigation Measures BIO-2 through BIO-6 would minimize impacts to the San Bernardino Kangaroo Rat and the Santa Ana River Woolystar by avoiding, maintaining or replanting suitable habitat. Mitigation Measure BIO-7 requires mitigation for the protection of the Burrowing Owl through focused surveys and avoidance of occupied burrows and habitat. Mitigation Measure BIO-8 would protect areas designated as jurisdictional features by requiring regulatory permits from the USACE, RWQCB, and CDFW, as applicable. Mitigation Measure BIO-9 requires the protection of nesting birds through construction scheduling to avoid disturbance of active nests during the respective nesting seasons. These mitigation measures would minimize or avoid overall losses of sensitive resources and would not result in significant secondary effects.

4. Cultural Resources

Mitigation Measure CUL-1 requires Phase I archaeological resources assessment prior to excavation, clearing, trenching, grading, or boring. If resources are discovered, a Phase II report shall be prepared as described in Mitigation Measure CUL-2. If resources are determined eligible for listing in the California Register or are considered “unique archaeological resources”, Mitigation Measure CUL-3 requires preparation of a Phase III assessment. Mitigation Measure CUL-4 includes methods for construction monitoring of archaeological resources. Mitigation Measure CUL-5 requires that ground-disturbing activities be ceased and a treatment plan be implemented if archaeological resources are encountered. Mitigation Measure CUL-6 requires the preparation of an archaeological monitoring report, if needed. Mitigation Measures CUL-7 requires cessation of ground-disturbing activity and consultation with the County Coroner and Native American tribes in the event human remains are encountered during Project implementation. These measures are intended to preserve and/or treat on-site cultural resources and would not result in significant secondary adverse effects either on- or off-site.

5. Greenhouse Gas Emissions

Impacts with respect to greenhouse gas emissions would be less than significant and no mitigation measures are required. Therefore, no secondary impacts would occur due to the implementation of mitigation measures for this environmental topic.

7. Land Use and Planning

Impacts with respect to land use and planning would be less than significant and no mitigation measures are required. Therefore, no secondary impacts would occur due to the implementation of mitigation measures for this environmental topic.

8. Noise

Mitigation Measure Noise-1 requires the implementation of sound attenuating features such as sound barrier walls, insulation, berms, or landscaping to reduce the exterior noise level at sensitive noise receptors to 65 CNEL or lower. These features would be site-specific and given their limited scope of development would not result in significant secondary impacts on the surrounding area.

9. Transportation/Traffic

Mitigation Measure TRAF-1 requires future Project applicants to participate in the City of Rialto DIF Program by paying applicable fees, supplemented by participation in additional fair share intersection improvement costs as needed. If the City finds that the payment of DIF fees alone do not adequately address the Project's proportionate share, a fair share contribution may be imposed in order to mitigate the Project's share of cumulative impacts. This mitigation measure applies to funding and would not have a secondary impact on the environment. Off-site impacts associated with improvements conducted under the DIF Program would be evaluated as part of a separate environmental analysis, as necessary.

E. Growth-Inducing Impacts

Section 15126.2(d) of the CEQA Guidelines requires an EIR to discuss the ways the Project could foster economic or population growth or the construction of additional housing, directly or indirectly, in the surrounding environment. Growth-inducing impacts include the removal of obstacles to population growth (e.g., the expansion of a wastewater treatment plant allowing more development in a service area) and the development and construction of new service facilities that could significantly affect the environment individually or cumulatively. In addition, growth must not be assumed as beneficial, detrimental, or of little significance to the environment.

The Project would allow for the future development of up to 462,000 square feet of retail shopping center uses and 125,000 SF of business park uses, or implementation of a residential overlay allowing up to 275 multi-family dwelling units, which if developed, would replace up to 116,000 square feet of retail shopping center. With residential development, a total 346,000 SF of would be available for retail shopping center use. The future development of new residential units

and commercial and school uses would not cause a progression of growth beyond the Project Site itself. The Project Site is located in an infill area surrounded by developed, urbanized land, including residential neighborhoods and utilized industrial sites. The Site, as well as the surrounding community is served by existing infrastructure (e.g., roads and utilities), and community service facilities (e.g., police, fire, schools, and libraries). The Project's infrastructure improvements would include tie-ins to, and extensions of, the existing utility main-lines already serving the area, as well as driveways off of the newly constructed Pepper Avenue roadway extension.

This Project's incremental growth would generate new employment opportunities and potentially new residents. Much of the development, if retail and business park only, would serve the City's and surrounding area's existing population. With the implementation of the residential component, the Project would address existing housing shortages and demand. Because the Project would serve existing populations and housing demand, it would not foster significant growth inducing impacts.

F. Energy Conservation

Appendix F of the State *CEQA Guidelines* states that, in order to ensure that energy implications are considered in project decisions, the potential energy implications of a project shall be considered in an EIR, to the extent relevant and applicable to the project. Appendix F further states that a project's energy consumption and proposed conservation measures may be addressed, as relevant and applicable, in the Project Description, Environmental Setting and Impact Analysis portions of technical sections, as well as through mitigation measures and alternatives.

In accordance with the intent of Appendix F of the State CEQA Guidelines, which requires an EIR to include a discussion of the potential energy impacts of a proposed project with an emphasis on avoiding of reducing inefficient, wasteful, and unnecessary consumption of energy, this section includes relevant information and analyses that address the energy implications of the Specific Plan Project. This section represents a summary of the Project's anticipated energy needs, impacts, and conservation measures. As is discussed further below, the Specific Plan would incorporate Project Design Features, sustainable design and site planning policies, energy efficiency policies, material efficiency policies, and water efficiency policies. Information found herein, as well as other aspects of the Project's energy implications, are also discussed in Chapter 2, *Project Description*, and Section 4.B, *Air Quality*, Section 4.E, *Greenhouse Gas Emissions*, Section 4.F, *Land Use and Planning*, and Section 4.H, *Transportation*, of this EIR. Detailed energy calculations are provided in **Appendix H** of this EIR.

Development within the Pepper Avenue Specific Plan Project Site consists of the following two future development scenarios.

- Scenario 1 (S1) would consist of the development of community commercial, open space, and public facility uses on the Project Site.
- Scenario 2 (S2) would consist of the development of community commercial, open space, and public facility uses, as well as the development of a residential overlay that would transfer retail uses to open space area.

For the purpose of this analysis, Project impacts are analyzed based on development scenario S2, which would result in maximum energy demand due to the development of a residential overlay, which would increase the total building square footage, generate more vehicle trips, and reduce the amount of open space.

1. Construction-Related Energy Consumption

a. Estimated Energy Consumption

Construction energy consumption would result primarily from transportation fuels (e.g., diesel and gasoline) used for haul trucks, heavy-duty construction equipment, and construction workers traveling to and from the site. This analysis provides the estimated maximum construction energy consumption for the purposes of evaluating the associated impacts on energy resources. Off-road equipment associated with construction would include equipment such as such as backhoes, dozers, generators, and paving equipment. The equipment would likely be diesel-fueled. For the purposes of this assessment, it is assumed equipment would be diesel-fueled, due to the speculative nature of specifying the amounts and types of non-diesel equipment that might be used in future years, and the difficulties in calculating the energy which could be consumed by non-diesel equipment. This also represents a worst-case scenario intended to represent the maximum potential energy use during construction. Based on the anticipated development program and engineering estimates used as the basis for the construction-related impact analyses (development scenario S2), the number and type of equipment that would be used during construction, and fuel consumption factors from the California Air Resources Board (CARB) off-road equipment emissions (OFFROAD) model, off-road equipment would be anticipated to use up to approximately 69,620 gallons of diesel fuel in a year, assuming construction of 10 percent of the proposed uses in a year.

For on-road heavy-duty trucks, based on the anticipated development program and engineering estimates that form the basis of the construction-related impact analyses (development scenario S2), it is estimated that approximately 76,200 vehicles miles traveled (VMT) would be required. Based on the CARB on-road vehicle emissions model, EMFAC2014, heavy-duty trucks operating in the South Coast Air Basin would have an estimated fuel economy of approximately 5.57 miles per gallon (conservatively modeled in EMFAC2014 as calendar year 2017 fleet average, heavy-heavy-duty trucks [HHDT]).[1] Fuel consumption from truck idling was also included based on

[1] California Air Resources Board, EMFAC2014, *Mobile Source Emissions Inventory*, 2014, http://www.arb.ca.gov/msei/categories.htm#emfac, accessed October 2016.

idling fuel consumption factors estimated from EMFAC2014 of approximately 2.09 gallons per hour for heavy-duty trucks. Based on the information described above, construction of the implementing projects within the Specific Plan area would use up to approximately 19,450 gallons of diesel fuel for heavy-duty trucks and associated idling in a year, assuming construction of 10 percent of the proposed uses in a year.

The number of construction workers that would be required would vary based on the phase of construction and activity taking place. The transportation fuel required by construction workers to travel to and from the implementing project sites within the Specific Plan area would depend on the total number of worker trips estimated for the duration of construction activity. Based on the on the anticipated development program and engineering estimates used as the basis for the construction-related impact analyses (development scenario S2), it is estimated that a total of up to approximately 855,500 VMT would be required. According to the EMFAC2014 model, passenger vehicles (light-duty automobiles and light-duty trucks) operating in the South Coast Air Basin would have an average fuel economy of approximately 23.48 miles per gallon (conservatively modeled in EMFAC2014 as calendar year 2017 fleet average, light-duty automobile [LDA] and light-duty trucks [LDT]). Assuming construction worker vehicles have an average fuel economy consistent with the EMFAC2014 model, workers would use up to approximately 36,440 gallons of fuel (primarily gasoline) for construction worker trips in a year, assuming construction of 10 percent of the proposed uses in a year.

Based on fuel consumption data from the United States Energy Information Administration (USEIA), in 2014, California consumed a total of 343,568 thousand barrels of gasoline for transportation, which is equivalent to a total annual consumption of approximately 14.4 billion gallons by the transportation sector.[2] For diesel, California consumed a total of 79,756 thousand barrels for transportation, which is equivalent to a total annual consumption of approximately 3.3 billion gallons by the transportation sector.[3]

Based on the conservatively estimated fuel usage amounts presented above, construction of the Project would use up to approximately 89,070 gallons of diesel and 36,440 gallons of gasoline in a year, assuming worker automobiles are primarily gasoline fueled and heavy-duty construction equipment and trucks are primarily diesel-fueled and assuming construction of 10 percent of the proposed uses in a year. To put these numbers into perspective, the estimated annual average construction fuel usage would represent a very small fraction of the State's annual fuel usage (about 0.003 percent of the Statewide annual diesel consumption and 0.0003 percent of the Statewide annual gasoline consumption). A comparison of the Specific Plan's estimated fuel usage and the state's annual fuel usage is provided in **Table 6-1**.

2 United States Energy Information Administration, "Table F3: Motor Gasoline Consumption, Price, and Expenditure Estimates", http://www.eia.gov/state/seds/data.cfm?incfile=/state/seds/sep_fuel/html/fuel_mg.html&sid=CA, accessed October 2016.

3 United States Energy Information Administration, "Table F7: Distillate Fuel Oil Consumption Estimates", 2016b, http://www.eia.gov/state/seds/data.cfm?incfile=/state/seds/sep_fuel/html/fuel_use_df.html&sid=CA, accessed October 2016.

Construction of the Project is not expected to require substantial electricity usage. Electricity use during construction would be variable depending on lighting needs and the use of electric-powered equipment and would be temporary for the duration of construction activities. If electric-powered construction equipment or vehicles are used, they would replace the diesel- and gasoline-fueled equipment assumed in this assessment. Therefore, it is expected that construction electricity use would generally be considered as temporary and negligible and generally accounted for in the energy estimates discussed above.

TABLE 6-1
ESTIMATED PROJECT CONSTRUCTION FUEL USAGE

Source	Gallons of Diesel Fuel Per Year	Gallons of Gasoline Fuel Per Year
Specific Plan Construction (maximum scenario, S2)	89,070	36,440
State of California (Transportation Sector)	3,300,000,000	14,400,000,000
Percent of State (Transportation Sector)	0.0027%	0.0003%
Estimated Project Energy Savings from Construction Measures	23,290	—

SOURCE: ESA PCR, 2016

b. Energy Conservation: Regulatory Compliance

The Specific Plan implementing projects would utilize construction contractors that demonstrate compliance with applicable CARB regulations governing the accelerated retrofitting, repowering, or replacement of heavy duty diesel on- and off-road equipment. As discussed in Section 4.B, *Air Quality*, of this EIR, CARB has adopted an Airborne Toxic Control Measure (ATCM) to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other toxic air contaminants. This measure prohibits diesel-fueled commercial vehicles greater than 10,000 pounds from idling for more than five minutes at any given time. CARB has also approved the Truck and Bus regulation (CARB Rules Division 3, Chapter 1, Section 2025, subsection (h)) to reduce air pollutant emissions from existing diesel vehicles operating in California. In addition to limiting exhaust from idling trucks, CARB recently promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower. The regulation aims to reduce emissions by requiring the installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models.

While intended to reduce construction criteria pollutant emissions, compliance with the above anti-idling and emissions regulations would also result in efficient use of construction-related energy and the minimization or elimination of wasteful and unnecessary consumption of energy. According to the CARB staff report that was prepared at the time the anti-idling ATCM was being proposed for adoption in late 2004/early 2005, the regulation was estimated to reduce non-essential idling and associated emissions of diesel particulate matter and nitrogen oxide (NO_X)

emissions by 64 and 78 percent respectively in analysis year 2009.[4] These reductions in emissions are directly attributable to overall reduced idling times and reduced idling fuel combustion as a result of compliance with the regulation, and the Project's compliance would result in energy savings of approximately 16,050 gallons of diesel fuel, assuming a fuel reduction equivalent to the percent reduction of particulate matter or NO_X as estimated by CARB (the lesser value [i.e., 64 percent] is used as a conservative assumption).

c. Energy Conservation: Mitigation Measures

In accordance with Mitigation Measure AQ-1 (see Section 4.B, *Air Quality*), Specific Plan implementing projects would utilize construction equipment that meet the CARB and U.S. Environmental Protection Agency (USEPA) Tier 4 standards for off-road equipment.[5] In the event that all construction equipment cannot meet the Tier 4 engine certification, the applicant(s) must demonstrate through future study that reductions in the daily NOx and $PM_{2.5}$ emissions can be achieved by other technologies/strategies so that emissions from all concurrent construction would not exceed applicable SCAQMD daily emission thresholds. A field testing program by an engine manufacturer that included a wide range of equipment types has shown that a Tier 4 engine results in up to 10 percent lower fuel consumption than an equivalent Tier 3 engine based on the overall results of the program.[6] Another manufacturer has shown an 18 percent increase in fuel efficiency with a Tier 4 lift truck (i.e., forklift) as compared to the previous generation.[7] The use Tier 4 equipment for Specific Plan implementing projects would therefore be associated with savings of approximately 7,250 gallons of diesel fuel, assuming a 10 percent energy savings for the Tier 4 equipment as compared to an equivalent Tier 3 equipment. Compliance with regulatory measures and implementation of Mitigation Measure AQ-1 would result in estimated annual fuel savings of approximately 23,290 gallons of diesel fuel in a year of construction assuming construction of 10 percent of the proposed uses in a year. The Project's construction energy savings estimates from regulatory compliance and mitigation measures are summarized in Table 6-1.

d. Conclusion

Construction would utilize energy for necessary on-site activities and to transport materials, soil, and debris to and from each site within the Specific Plan area. The amount of energy used would not represent a substantial fraction of the available energy supply in terms of equipment and

4 California Air Resources Board, Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling, Appendix F, July 2004, https://www.arb.ca.gov/regact/idling/idling.htm, accessed October 2016.

5 Mitigation Measure AQ-1 also allows alternative methods to achieve similar emissions reductions. For the purposes of this assessment, given that the generation of emissions and energy demand from construction equipment has a generally proportional relationship, it is assumed alternative methods would also achieve similar energy savings as utilizing Tier 4 equipment.

6 Cummins, *Cummins Tier-4-Final Field Test Showed 10% Lower Fuel Consumption*, March 5, 2014, http://www.cumminspacific.com/about/news/!content/2014/03/05/cummins-tier-4-final-field-test-program-exceeds-140-000-hours-gaining-valuable-experience-with-operators-on-site, accessed October 2016.

7 Mitsubishi Caterpillar Forklift America, Inc. (MCF), *Cat® Lift Trucks Introduces New Tier 4 Final Diesel Pneumatic Tire Lift Truck*, November 19, 2015.

transportation fuels. Furthermore, based on the available data, it is reasonable to conclude that compliance with the previously discussed regulations and mitigation measures (i.e., idling restrictions and the use of low-pollutant engines and equipment) would result in less fuel combustion and energy consumption, a more efficient use of energy, and the minimization or elimination of wasteful and unnecessary consumption of energy during construction.

2. Operation and Maintenance Energy Consumption

a. Estimated Building Energy Consumption

Operational energy consumption would occur from building energy needs and from transportation fuels (e.g., diesel and gasoline) used for vehicles traveling to and from the site. This analysis provides the estimated maximum operational energy consumption for the purposes of evaluating the associated impacts on energy resources.

The operation of the land uses proposed under the Specific Plan would generate demand for electricity, natural gas, and water supply, as well as generating wastewater requiring conveyance, treatment, and disposal off-site, and solid waste requiring disposal off-site. Based on the anticipated development program and engineering estimates that form the basis of the operational-related impact analyses (development scenario S2), the operation of the land uses proposed under the Specific Plan would conservatively have an electricity demand of approximately 16.1 million kilowatt-hours (kWh), which assumes compliance with existing Title 24 standards and is inclusive of electricity for water supply and wastewater treatment. To put this number into perspective, the value is compared to the Southern California Edison (SCE) network demand, which is the utility provider for the Specific Plan region. In the 2015 year, SCE had annual electric deliveries to customers of approximately 87,544 gigawatt-hours (equivalent to 87,544 million kWh).[8] The land uses proposed under the Specific Plan would represent approximately 0.018 percent of the SCE network sales for the 2015 year, which is a relatively very small fraction.

Based on the anticipated development program and engineering estimates that form the basis of the operational-related impact analyses (development scenario S2), the operation of the land uses proposed under the Specific Plan would conservatively have a natural gas demand of approximately 21.23 million kilo British thermal units (kBtu) per year. To put this number into perspective, the value is compared to the Southern California Gas Company network demand, which is the regional utility provider. In 2015, the Southern California Gas Company had natural gas sales of approximately 291 billion cubic feet, equivalent to approximately 306 billion kBtu (also equivalent to 306,000 million kBtu).[9] The land uses proposed under the Specific Plan would represent approximately 0.007 percent of the Southern California Gas Company network demand

8 Southern California Edison (SCE), Edison International and Southern California Edison 2015 Annual Report, February 25, 2016, http://www.edison.com/content/dam/eix/documents/investors/corporate-governance/2015-eix-sce-final-annual-report.pdf, accessed October 2016.

9 Sempra Energy, 2015 Annual Report, http://www.sempra.com/pdf/financial-reports/2015_annualreport.pdf, accessed November 2016.

for the 2015 year, which is a very small fraction. A summary of the Specific Plan's operational estimated energy usage and the state's annual energy usage is provided in **Table 6-2.**

b. Energy Conservation: Regulatory Compliance

The California Energy Commission (CEC) first adopted the Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Part 11 of the Title 24 Building Standards Code is referred to as the CALGreen Code. The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality." As of January 1, 2011, the CALGreen Code is mandatory for all new buildings constructed in the State. The CALGreen Code establishes mandatory measures for new residential and non-residential buildings, which includes requirements for energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The CALGreen Code was most recently updated in 2016 to include new mandatory measures for residential and nonresidential uses. The new measures take effect on January 1, 2017. The Project would comply with or exceed the applicable provisions of Title 24 and the CALGreen Code in effect at the time of building permit issuance. According to the CEC, the Title 24 (2016) standards use 28 percent less energy for residential and 5 percent less energy for nonresidential lighting, heating, cooling, ventilation, and water heating compared to the previous Title 24 (2013) standards. It is expected that future updates to the Title 24 standards would result in increased energy efficiency. The next iteration of the Title 24 standards are anticipated in 2019; however, estimated buildings energy reductions from these future standards are not yet known or available. The California Public Utilities Commission (CPUC) has also designed the Zero Net Energy (ZNE) Action Plan to make new residential and commercial construction in California zero net energy by 2030 in order to meet the state's greenhouse gas goals. The ZNE Action Plan's key milestones are achieved by improving and expanding Title 24 standards, providing incentives, mandating carbon benchmarking and labeling, and developing performance data. However, it is not possible to accurately predict the increased level of energy efficiency associated with future updates to the Title 24 standards. Furthermore, Title 24 only regulates a portion of a buildings energy usage primarily related to lighting, heating, cooling, ventilation, and water heating; therefore, is it not possible to speculate how future Title 24 standards would affect the overall energy profile of a building. As discussed in Section 4.E, *Greenhouse Gas Emissions*, of this EIR, applicable General Plan goals call for the optimization of energy efficiency and the increase in renewable energy resources and energy conservation. Additionally, continued improvements in California's appliance and building energy efficiency programs and initiatives, such as the State's zero net energy building goals, would serve to reduce the anticipated energy consumption for land uses proposed under the Specific Plan, particularly for those land uses built after 2020, the anticipated year when the future Title 24 (2019) standards take effect and 2030, the anticipated year when the future ZNE standards are fully implemented. As a result, the energy estimates provided above are

considered conservative estimates, as they do not take into account anticipated energy reductions from future standards, which are not yet known or available.

With respect to solid waste, the land uses proposed under the Specific Plan would be required to comply with applicable regulations, including those pertaining to waste reduction and recycling. Waste haulers serving the Specific Plan Area would divert generated municipal waste in accordance with applicable ordinances, as well as future updates to the ordinances in effect at the time of construction and operation.

c. Operational Transportation Energy Consumption

Implementation of the Specific Plan would result in transportation energy use. Transportation fuels, primarily gasoline and diesel, would be provided by local or regional suppliers and vendors. As discussed previously, in 2014, California consumed a total of 14.4 billion gallons of gasoline and 3.3 billion gallons of diesel in the transportation sector. Vehicles would require a fraction of a percent of the total state's transportation fuel consumption. According to the EMFAC2014 model, the vehicle fleet average fuel economy for all vehicle types in the South Coast Air Basin region in 2035 is predicted to be approximately 34.05 miles per gallon for gasoline and 13.92 miles per gallon for diesel with gasoline vehicles accounting for 84.03 percent of the total VMT and diesel vehicles accounting for 8.14 percent of the total VMT. Electric vehicles are predicted to account for 7.83 percent of the total VMT. The Specific Plan would improve pedestrian connectivity in the Town's commercial districts, increase bicycle lanes, provided for public transit, which would reduce wasteful or inefficient transportation energy consumption with respect to vehicles.

Based on the maximum estimated VMT of approximately 46.4 million miles per year (development scenario S2), vehicles would use approximately 1,145,180 gallons of gasoline and 271,420 gallons of diesel fuel in a year. This would represent about 0.008 percent of the Statewide gasoline consumption and about 0.008 percent of the Statewide diesel consumption, which represents a very small fraction of the state's annual fuel usage. The CALGreen Code requires the installation of electric vehicle supply equipment (EVSE) for the residential and nonresidential uses, which would eliminate infrastructure roadblocks for future users of the land uses proposed under the Specific Plan that purchase electric or electric-hybrid vehicles. As a result, the development under the Specific Plan would support Statewide efforts to improve transportation energy efficiency and reduce wasteful or inefficient transportation energy consumption with respect to private automobiles. Alternative-fueled, electric, and hybrid vehicles, to the extent these types of vehicles would be utilized by passengers, would reduce the consumption of transportation fuels for the land uses proposed under the Specific Plan. According to the EMFAC2014 model, electric vehicles are predicted to account for approximately 7.83 percent of the vehicle fleet total VMT in 2035 in the region. Based on the estimate above, this would translate to a fuel savings of up to about 106,670 gallons of fuel (primarily gasoline, assuming electric vehicles replace gasoline-fueled passenger vehicles) per year. Plug-in electric vehicles would generally obtain battery power from utilities, which as discussed in Section 4.E, *Greenhouse Gas Emissions*, of this EIR, are required to provide an increasing share of electricity from renewable sources (i.e., 33 percent by 2020 and 50 percent by 2030) under the State's

Renewables Portfolio Standard. Therefore, while plug-in electric vehicles would replace traditional transportation fuels (i.e., gasoline) with utility provided electricity, the electricity would be provided by an increasing share of renewable sources resulting in an overall reduction in energy resource consumption. A summary of the Specific Plan's operational estimated energy usage and the state's annual energy usage is provided in **Table 6-2.**

TABLE 6-2
ESTIMATED PROJECT OPERATIONAL ENERGY USAGE

Source	Natural Gas Per Year (million kBtu)	Electricity Per Year (million kWh)	Gallons of Diesel Fuel Per Year	Gallons of Gasoline Fuel Per Year
Specific Plan Operation (maximum scenario, S2)	21.23 a	16.16 a	271,420	1,145,180
Southern California Edison (SCE)	—	87,544	—	—
Percent of SCE	—	0.018%	—	—
Southern California Gas Company	306,000	—	—	—
Percent of Southern California Gas Company	0.007%	—	—	—
State of California (Transportation Sector)	—	—	3,300,000,000	14,400,000,000
Percent of State (Transportation Sector)	—	—	0.008%	0.008%
Estimated Project Energy Savings from Operational Measures (Annual)	—	—	—	106,670 (electric vehicle supply equipment)

[a] The energy usage is estimated assuming compliance with existing Title 24 standards. The next iteration of the Title 24 standards are anticipated in 2019; however, estimated buildings energy reductions from these future standards are not yet known or available. Furthermore, estimated buildings energy reductions from the future ZNE standards are not yet known or available. Therefore, it is not possible to calculate the reduced energy from these future anticipated standards. As a result, the estimated operational energy usage at 2035 buildout would likely be lower than show herein, but it is not possible to predict the level of reduction given the lack of available data.

SOURCE: ESA, 2016

d. Energy Conservation: Land Use Characteristics and Project Design Features

Future development under the Specific Plan would comply with energy reduction standards set forth in Title 24, Building Standards and CalGreen Code. In addition, projects would comply with the San Bernardino County Regional Greenhouse Gas (SBC) Reduction Plan establishes policies to reduce GHG emissions through energy conservation. City of Rialto GHG reduction measures also require the utility and energy service providers procure 33 percent of retail sales from renewable sources by 2020; Title 24 energy efficiency standards; lighting efficacy to achieve reduction in indoor lighting; incentive programs for solar water heating; transportation reduction strategies; and 10 percent reduction in transportation fuels by 2020. Other policies include solar installations for new commercial uses; and installation of co-generation facilities. The Specific Plan includes a number of sustainable design strategies to be implemented by future projects within the Specific Plan area that would reduce operational energy demand. As discussed in Section 4.E, *Greenhouse Gas Emissions*, these include the following:

- For buildings that rely on water heating, install solar water heating systems that use rooftop solar technologies to offset natural gas use, and thus reduce fuel consumption and GHG emissions. (State-4)
- Encourage new commercial businesses to install rooftop solar photovoltaic systems. (Energy-5)
- Encourage new commercial and industrial facilities greater than 100,000 SF to install co-generation facilities that combine heat and power systems for energy output. (Energy-9)
- Incorporate GHG performance standards that would require the Project to quantify Project-generated GHG emissions and adopt feasible reduction measures, such as energy efficiency and alternative energy strategies, to reduce Project emissions. Measurable reductions of GHG emissions would be achieved through discretionary approval of residential, commercial, and industrial development projects. (PS-1)

The implementation sustainable design strategies applicable to energy reduction, in addition to the City of Rialto's reduction measures, would contribute to energy efficiency and reduce demand.

e. Conclusion

Operation of the Project would utilize energy for necessary building usage and transportation associated with vehicles traveling within the Specific Plan area. The amount of energy used would represent an insubstantial fraction of the region's available energy supply. The Project would also incorporate green building measures consistent with energy efficiency standards in CALGreen, the SBC Reduction Plan, and City of Rialto GHG reduction measures. Because the Specific Plan would implement energy efficient building standards and encourage use of non-motorized transportation (walking and cycling), it would not result in the wasteful, inefficient, and unnecessary consumption of energy. In addition, future growth that could occur under the Project could provide opportunities for improving overall fuel efficiency and future energy conservation.

G. Effects Found Not to be Significant

Section 15128 of the *CEQA Guidelines* states that an EIR shall contain a brief statement indicating reasons that various possible significant effects of a project were determined not to be significant and not discussed in detail in the Draft EIR. An Initial Study was prepared for the project and is included in Appendix A of this Draft EIR. The Initial Study provides a detailed discussion of the potential environmental impact areas and the reasons that each topical area is or is not analyzed further in the Draft EIR. The City of Rialto determined that the project would not result in potentially significant impacts related to the items summarized below. Please refer to the Initial Study for further discussions of these issues.

1. Aesthetics

Scenic Resources - As indicated in the City of Rialto General Plan (2010) (General Plan) and the City of Rialto General Plan Update Draft EIR (2010) (General Plan Update DEIR), there are no eligible or officially designated State Scenic Highways within the City. Also, the City of San Bernardino does not have any designated scenic highways within the Project vicinity.[10] Further, the Project is not located along a state scenic highway and there are no state scenic highways located within the Project vicinity. As such, none of the roadways adjacent to and in the vicinity of the Project Site are designated as a scenic highway. In addition, no valued scenic resources or other notable aesthetic features within the Project Site. Therefore, implementation of the Project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

2. Agricultural and Forestry Resources

Farmland - The Project Site is not located on designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program. As such, the Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses. No impact on farmlands would occur.

Agricultural Zoning - The Project would not conflict with the existing zoning for an agricultural use, as the site is currently zoned for residential uses. Additionally, no portion of the project site is enrolled in a Williamson Act Contract. Thus, no impact would occur.

Forest Lands - Project implementation would not result in changes to or cause rezoning of forest land, timber land or timberland zoned for Timberland Production. In addition, the Project Site does not include forest lands or areas zoned or utilized for timberland production. Thus, no impact to forest lands would occur.

3. Geology and Soils

Fault Rupture – The entire Project Site is located within the State of California designated Alquist-Priolo Earthquake Fault Zone for the San Jacinto fault. Design feature (DF) GEO-1 provides for detailed, site-specific geotechnical investigation(s) that would be prepared in accordance with Alquist-Priolo Earthquake Fault Zoning Act regulatory requirements. The investigation(s) would be required prior to approval of a grading permit within the Project Site of buildings involving human occupancy or other projects defined by the Alquist-Priolo Fault Zoning Act. The required subsurface fault investigation (i.e., trenching) would determine the existence of any fault traces and if any exist, delineate the exact location of any fault traces. The investigation would be able to make the determination that no fault trace is located within a minimum 50 feet of any habitable structure of the future, individual development. If evidence of active faulting is encountered as part of the investigation, proposed habitable structures would not

[10] City of San Bernardino General Plan, Figure C-1, Scenic Highways/Routes. November 1, 2005.

be permitted in a zone surrounding the fault(s). The width of the structural setback zone shall be determined as part of the investigation, but shall have a minimum setback of 50 feet.

In addition, DF GEO-2 reflects the requirements of the Natural Hazards Disclosure Act, under Sec. 1103 of the California Civil Code, which states that real estate seller and brokers are legally required to disclose if the property being sold lies within one or more state or locally mapped hazard areas. The law specifies that hazards, including earthquake fault zones, be disclosed on a statutory form called the Natural Hazard Disclosure Statement (NHDS).

With the habitable structure setbacks implemented per applicable laws and regulatory requirements, which are reflected in DF GEO-1, and proper hazard disclosure as cited in DF GEO-2, impacts related to fault rupture would be less than significant.

Design Features

DF GEO-1: ***Geotechnical Investigation*** – Prior to the approval of a precise grading permit for any building within the Project Site, a subsequent site- and design-specific geotechnical and geologic report prepared by a licensed geologist shall be submitted to the City Engineer for review and approval. The report shall document the feasibility of each proposed use and the appropriate geotechnical, geologic, and seismic conditions associated with that use. The geologic investigation shall demonstrate that buildings for human occupancy will not be constructed across active faults and must be setback in accordance with Alquist-Priolo Earthquake Fault Zoning Act requirements. For residential uses, setback distances may vary, but a minimum 50-foot setback is required.

To demonstrate compliance with the Alquist-Priolo Earthquake Fault Zoning Act requirements, the analysis shall include the results of a subsurface investigation, including on-site trenching activities as necessary, to delineate the precise location(s) of any fault traces that could impact buildings on the future development. Unless otherwise modified, any conditions, recommendations, or construction measures contained therein, including the imposition of specified setback requirements for proposed development activities within Alquist-Priolo Earthquake Fault Zones, shall become conditions of approval for the requested use. The report shall comply with all applicable State and local code requirements, including the current building code in effect at the time of precise grading permit issuance.

DF GEO-2: ***Geotechnical Disclosures*** – Pursuant to the requirements of the Natural Hazards Disclosure Act, under Sec. 1103 of the California Civil Code, real estate sellers and brokers shall disclose to future buyers that if the project lies within one or more state or locally mapped hazard areas, including an earthquake fault zone. This hazard shall also be disclosed on a statutory form called the Natural Hazard Disclosure Statement (NHDS) to all prospective buyers within the Project Site.

Seismic Related Ground Shaking, Ground Failure, and Landslides - The probability that the site will be subject to strong seismic shaking from a moderate to large earthquake on a major active fault in the region is high. Numerous faults have been mapped within this area of Southern California. According to the Geotechnical Investigation, the most significant and major active and potentially active fault systems that could produce significant ground shaking at the site include the San Jacinto, San Andreas and Cucamonga faults.

There is no realistic way in which the hazard of seismic shaking can be totally avoided. However, exposure to future ground shaking is no greater than at many other sites in southern California. Furthermore, it should be recognized that while it is not considered feasible to make structures totally resistant to seismic shaking, they would be designed not to collapse. The effects of seismic shaking on structures can be reduced through conformance with the structural and seismic requirements recommendations of future site-specific and design-specific geotechnical and geologic reports (see DF GEO-1), the California Building Code, and/or other local governing agencies' codes or requirements (i.e., County of San Bernardino and City of Rialto code requirements). Conformance with these requirements would promote safety in the event of a large earthquake and minimize damage thereby reducing the impacts of ground shaking to a less than significant level.

In addition, the geotechnical investigation(s) for the site, based on the actual design plans (see DF GEO-1), would provide site-specific design measures to be implemented during construction that would address any potential liquefaction and landslide hazards in accordance with applicable City and State building code requirements (i.e., California Building Code, City of Rialto Municipal Code, etc.).

Soil Erosion or the Loss of Topsoil - Future construction within the Project Site would result in some ground surface disruption during excavation, grading, and trenching that would create the potential for erosion to occur. Due to the grade of the Project Site, the Project will not have any cut or fill slopes in excess of 10 feet in height. Additionally, a Storm Water Pollution Prevention Program (SWPPP) incorporating Best Management Practices (BMPs) for erosion control would be prepared prior to the start of grading activities for each future development in accordance with governing agencies, including the Santa Ana Regional Water Quality Control Board (RWQCB) (see DF HYDRO-1). With the implementation of BMPs incorporated in the SWPPP during future construction activities, water- and wind-related soil erosion will be limited and managed within construction site boundaries.

During long-term operation of future developments in the Project Site, soil erosion would be mitigated through site drainage design and maintenance practices, as required by the RWQCB as part of a project-specific Water Quality Management Plan (WQMP) for each future development (see DF HYDRO-2). Design procedures can be incorporated to reduce soil erosion such as appropriate surface drainage design of roadways and facilities to provide for positive surface runoff (see DF HYDRO-3). Such design features would serve to reduce concentrated run-off conditions that could cause erosion and affect the stability of project improvements.

Given adherence to erosion control requirements of the RWQCB and implementation of construction-related BMPs and project-specific WQMPs for future developments within the Project Site, impacts associated with soil instability from wind- and water-borne erosion would be less than significant.

Design Features

DF HYDRO-1 SWPPP - A Storm Water Pollution Prevention Plan (SWPPP) shall be developed by the applicant of each future development proposed within the Specific Plan that disturbs 1 or more acre. The SWPPP shall comply current Construction General Permit (CGP) and associated local National Pollutant Discharge Elimination System (NPDES) regulations at the time of development to ensure that the potential for soil erosion and short-term water quality impacts is minimized on a project-by-project basis.

DF HYDRO-2 WQMP - A Water Quality Management Plan (WQMP) shall be developed by the applicant of each future development proposed within the Specific Plan. The WQMP shall comply with all applicable provisions of the San Bernardino County Technical Guidance Document for Water Quality Management Plan (TGD-WQMP), WQMP Template (Template), and Transportation Project BMP Guidance, as required under Section XI.D.2 of Order No. R8-2010-0036. The WQMP shall include, but not be limited to, the following:

- Incorporation of site design/Low Impact Development (LID) strategies and source control measures in a systematic manner that maximize the use of LID features to provide treatment of stormwater and reduce runoff. For those areas of the site where LID features are not feasible or do not meet the feasibility criteria, treatment control Best Management Practices (BMPs) with biotreatment enhancement design features shall be utilized to provide treatment. LID features shall be sized to infiltrate the required design capture volume (DCV) to reduce impacts of pollutants and runoff volumes to downstream receiving waters.
- Assuming complete build-out of the project, the entire Project Site shall require approximately 5.4 acre-feet of runoff to be infiltrated to retain the runoff from the 85th percentile, 24-hour rain event. Individual developments shall be responsible for their proportionate share. Infiltration BMPs would be sized in accordance with Form 4.3-3 of the TGD for WQMPs.
- Should infiltration prove infeasible based on future geotechnical studies associated with the site-specific plans, harvest and reuse BMPs shall be evaluated as part of the future site-specific plans and WQMPs.

DF HYDRO-3 Storm Drain Infrastructure - Should the "West and East Systems Drainage Scenario," as depicted in Section IX, Hydrology and Water Quality, in Attachment B of the Initial Study be implemented by the Project, then DF HYDRO-3 shall be required. If an alternative drainage system is implemented, DF HYDRO-3 would not be required. As stated above, the final storm water design may differ from this design, as the Project's Specific Plan does not mandate specific building locations. Additionally, the final design could include green roofs, bioswales, etc. that would alter the minimum required size of the underground basin, or even eliminate the need for an underground basin. Other designs such as at-grade basins, or storm water designs that only treat individual developments could also be implemented.

- Regardless, the precise drainage conveyance system design would be analyzed as part of the Water Quality Management Plan for each future, precise development consistent with State and City requirements for storm water conveyance.

- If the Project Site west or east of Pepper Avenue is developed concurrently, the respective West or East drainage and water quality system would be constructed in its entirety consistent with DF HYDRO-2. In this scenario, the developers within either system would enter into a development agreement to delineate their fair share cost of design and construction of the facilities, as applicable. If the northerly portion within either system is developed prior to the southerly portion, the owner would be responsible to do one of the following;

  1. Install the proposed retention/detention system within the southerly portion of the Project Site (within their respective system) as well as any drainage conveyances to and from the basin system, sized to accommodate the south site as well. This could require a development agreement for reimbursement of the fair share of costs and shared land use between both owners; or
  2. Install drainage and water quality facilities to accommodate only the north portion of their respective system. This would most likely require the design and implementation of an interim Grading and Drainage Plan to mitigate any impacts to the southerly owner.

  In this scenario, if the southerly portion of either system is developed prior to the northerly portion, the southern property owner would be responsible to install a drainage and water quality system within the southerly portion of the Project Site to include the anticipated demand and capacity contributed from the northerly site (within their respective system). Specifically, the proposed stormwater conveyances and retention/detention basin within each system would be sized per stormwater and water quality demand for the either the entire West system (Planning Areas 5, 6, 7 and 8) or entire East system (Planning Areas 1, 2 and 3). As such, a development agreement between owners within each system would be implemented for the reimbursement of the fair share of costs.

Soil Stability Hazards - The Project Site's soil and geologic conditions indicate there is the potential for site/soil stability hazards to occur on the Site. The geotechnical investigation(s) for the Site, based on the actual design plans (see DF GEO-1), would provide site-specific design measures to be implemented during construction that would address any potential stability hazards in accordance with applicable City and State building code requirements (i.e., California Building Code, City of Rialto Municipal Code, etc.). Typical construction measures include overexcavation of potentially compressible soils, placement of compacted fill materials, and foundation designs to limit distress of structures. Implementation of the DF GEO-1 would ensure that the design recommendations in future site-specific geotechnical investigations identify the necessary extent of overexcavation and fill materials, as well as foundation design recommendations, to minimize the potential for damage resulting from site/soil stability hazards. Thus, with compliance to applicable regulations and conformance with DF GEO-1, impacts regarding stability hazards would be less than significant.

Expansive Soils - Expansive soils are typically associated with fine-grained clayey soils that have the potential to shrink and swell with repeated cycles of wetting and drying. Based on the soil types encountered during the Geotechnical Investigation (sand and gravel to silty sand), the soils exposed at pad grade are expected to exhibit a very low expansion potential. Although not anticipated, expansive soils, if encountered within the Project Site, would be removed and/or

replaced as part of standard construction practices pursuant to the City of Rialto and/or CBC building requirements. Therefore, Project implementation would result in less than significant impacts associated with expansive soils and substantial risks to life or property would not occur.

Septic Tanks - The Project Site is located in an urbanized area capable of being served by existing and new wastewater infrastructure, and therefore no septic tanks or alternative wastewater disposal systems would be required. As such, the Project would not result in impacts related to the ability of soils to support septic tanks or alternative wastewater disposal systems.

4. Hazards and Hazardous Materials

Routine Transport, Use, or Disposal of Hazardous Materials – Hazardous materials may be used during the construction phase of the Project's development components. Hazardous materials that may be used include, but are not limited to, fuels (gasoline and diesel), paints and paint thinners and possibly herbicides and pesticides. Generally, these materials would be used in concentrations that would not pose significant threats during the transport, use and storage of such materials. Furthermore, it is assumed that potentially hazardous materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations, including California Occupational Safety and Health Administration requirements, and Title 8 and 22 of the Code of California Regulations. Accordingly, risks associated with hazards to the public or environment posed by the transport, use or disposal of hazardous materials during construction are considered less than significant due to compliance with applicable standards and regulations.

Over the long-term, the Project would not involve facilities that include substantial storage, use, disposal, or generation of hazardous materials or wastes. However, ongoing landscape and building maintenance activities may involve the occasional use of hazardous materials. Potentially toxic or hazardous compounds associated with maintenance activities typically consist of readily available solvents, cleaning compounds, paint, herbicides, and pesticides. These hazardous materials are regulated by stringent federal and state laws mandating the proper transport, use, and storage of hazardous materials in accordance with product labeling. The use and storage of these substances is not considered to present a health risk when used in accordance with manufacturer specifications and with compliance to applicable regulations.

Overall, based on the above, construction and operation of the Project would result in a less than significant impact with regard to routine transport, use, or disposal of hazardous materials relative to the safety of the public or the environment.

Upset or Accident Conditions Involving the Release of Hazardous Materials - Records searches of hazardous materials databases revealed that the Project Site is not known to include any recognized or potential recognized environmental conditions (RECs). However, historic uses of the site for agricultural or farmland may have involved the use of pesticides, which could present a potential environmental concern for future individual developments on the Project Site. Due to the potential that concentrations of commercial pesticides which could have been applied on portions of the Project Site may still be present in on site soils, soil samples shall be collected and

analyzed for the presence of organochlorine pesticides and Title 22 Metals (see DF HAZ-1). Sampling and analysis would be conducted in accordance with appropriate California guidelines (e.g., Department of Toxic Substances Control, 2008, Interim Guidance for Sampling Agricultural Properties). Soils with elevated organochlorine pesticides or metals compared with these guidelines shall be removed and disposed offsite in accordance applicable federal, state, and local regulations. Implementation of DF HAZ-1 would ensure that impacts from past on-site agricultural uses are less than significant.

In addition, the Project would not involve facilities that include substantial storage, use, disposal, or generation of hazardous materials or wastes. While it is possible that vehicles carrying hazardous materials could occasionally utilize Pepper Avenue for transporting those goods, the risks associated with that activity would be no more or less than what could be expected on any other roadway within the region. In addition, trains on the BNSF Railway spur located to the east of the Project Site could potentially create hazardous conditions if an accident were to occur on the railway. However, this railway is a local-serving spur and is not highly traveled. Additionally, the nearest area of the Project Site that would support new development would be within PA 2. Future development within PA 2 would be over 150 feet from the nearest point on the railway and would comply with applicable setback requirements from the railway, minimizing the risk of accident hazards to adjacent uses from the railway. In addition, per existing laws and regulations, vehicles and trains carrying hazardous materials are required to abide well-established regulatory requirements relating to those activities.

Overall, with compliance to applicable regulations and conformance with DF HAZ-1, impacts related to significant hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would be less than significant.

Design Features

> **DF HAZ-1:** ***Soil Investigation*** –Soil samples shall be collected for new development within the Project Site prior to issuance of grading permits and analyzed for the presence of organochlorine pesticides and Title 22 Metals. Sampling and analysis shall be conducted in accordance with appropriate California guidelines (e.g., Department of Toxic Substances Control, 2008, Interim Guidance for Sampling Agricultural Properties). Soils with elevated organochlorine pesticides or metals compared with these guidelines shall be removed and disposed offsite in accordance applicable federal, state, and local regulations.

Hazardous Emissions Near Schools - Frisbie Middle School is located approximately 0.2 miles southwest of the Project Site. However, the limited quantities and regulated handling procedures of hazardous materials would not pose a risk to Frisbie Middle School or any other schools in the Project vicinity. The hazardous materials to be used as part of the proposed mix of uses would not be considered acutely hazardous in the small quantities in which they would be handled and used. Also, occupancy of the proposed commercial and potential residential uses would not cause hazardous substance emissions or generate hazardous waste. Furthermore, during construction activities, any soils that have been contaminated from pesticides due to former agricultural uses

would be removed and disposed offsite in accordance applicable federal, state, and local regulations (see DF HAZ-1). Implementation of DF HAZ-1 would ensure that impacts from past onsite agricultural uses are less than significant. Therefore, it is concluded that the Project would result in less than significant impacts regarding hazardous materials at any existing or proposed schools within one-quarter mile of the Project Site.

Hazardous Materials Site – The results of the records searches conducted for the Project indicate that the Project Site is not on any hazardous materials lists or databases. Further, no off-site facilities were listed on the databases reviewed that would appear to present an environmental concern for the Project Site. While the site may have impacted soils from pesticides utilized during previous onsite agricultural purposes, implementation of DF HAZ-1 would ensure that impacts from past onsite agricultural uses are less than significant. Therefore, less than significant impacts with regard to hazardous materials site would occur with Project implementation.

Airport Land Use Plan - The Project Site is not located within an airport land use plan or within two miles of a public airport or public use airport. The nearest airport, Rialto Municipal Airport, which closed in 2014, is located approximately 2.25 miles to the west. Therefore, Project implementation would not result in a safety hazard for people using the Project Site. Thus, no impact would occur in this regard.

Private Airstrips - There are no private airstrips in the vicinity of the Project Site. Therefore, the Project would not result in airport-related safety hazards for the people residing or working in the area. No impact would occur in this regard.

Emergency Response Plans - The Project Site and surrounding area, with the recently constructed Pepper Avenue roadway extension, are located in an area where adequate circulation and access is provided to facilitate emergency response. Future driveway and building configurations would comply with applicable fire access and code requirements for emergency evacuation, including proper emergency exits for patrons and potential residents. As part of the building permit plan check review for future developments within the Project Site, final site plans would be reviewed by the Fire Department for approval of access, circulation and emergency access. Construction activities are expected to be generally confined to the Project Site and would be subjected to emergency access standards and requirements of the City of Rialto Fire Department to ensure traffic safety. During construction, partial road closures may be necessary on Pepper Avenue for right-of-way frontage improvements and utility connections, but through access for drivers, including emergency personnel, along Pepper Avenue would still be provided. As such, implementation of the Project would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. Impacts would be less than significant.

5. Hydrology and Water Quality

Water Quality - With each future development in the Project Site (disturbing 1 or more acre) being required to prepare a SWPPP that meets applicable local and County requirements (see DF HYDRO-1), the water quality of receiving waters during construction activities would not be adversely affected. Thus, with compliance to applicable regulatory requirements and

implementation of DF-HYDRO-1, short-term water quality impacts would be less than significant.

All future development in the Project Site would be assessed as part of a WQMP that meets applicable local and County requirements (see DF HYDRO-2). The WQMP(s) would ensure that the water quality of receiving waters during long-term operations is not adversely affected. Thus, with compliance to applicable regulatory requirements and implementation of DF-HYDRO-2, long-term water quality impacts would be less than significant.

Groundwater Supplies - The Project is not by nature a groundwater extracting project; therefore, it would not deplete groundwater supplies. Individual future developments of the Specific Plan would be required to comply with the SARWQB's MS4 Permit and incorporate site-specific LID BMPs (DF HYDRO-2). As such, construction and operation of the Project would not substantially deplete groundwater supplies or result in a substantial net deficit in the aquifer volume or lowering of the local groundwater table. Thus, groundwater impacts would be a less than significant.

Hydrology and Drainage - Future development(s) within the Project Site would require on-site storm drain facilities for the purpose of conveying storm flows, detaining/retaining peak storm events, and for water quality mitigation. Generally, site-generated surface water runoff would continue to flow into the Pepper Avenue Watercourse, similar to existing conditions. Thus, existing drainage patterns would be maintained. The Project would not result in substantial increases in surface water runoff quantities.

Additionally, Project construction would comply with the applicable NPDES and City requirements including those regarding the preparation of WQMPs for future development associated with the Specific Plan (DF HYDRO-2). Finally, storm drain connections would be provided by the Project in consultation with the City of Rialto, with the applicant of each future development proposed within the Project Site responsible for paying development impacts fees per Title 3 – Revenue and Finance, Chapter 3.33 – Development Impact Fees, Section 3.33.270 – Storm Drain Facilities Development Impact Fee of the Municipal Code (see DF HYDRO-4). The fees would be utilized to fund storm drain infrastructure associated with the Specific plan. If determined necessary, fees would also be paid to the San Bernardino County Flood Control District.

Overall, a less than significant impact associated with alterations to existing drainage patterns would occur with Project implementation. Further, the Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Thus, less than significant impact would occur.

Design Features

Refer to DF HYDRO-1 to DF HYDRO-3, above. The following DF is also applicable.

DF HYDRO-4: Storm Drain Fees - The applicant of each future development proposed within the Project Site shall be responsible for paying development impacts fees per Title 3 – Revenue and Finance, Chapter 3.33 – Development Impact Fees, Section 3.33.270 – Storm Drain Facilities Development Impact Fee of the Municipal Code.

Flood Plain Hazards - The Project Site is not located within a FEMA designated 100-year floodplain. Therefore, the Project would not place structures within a 100-year floodplain, which would impede or redirect flood flows. Thus, no impact would occur regarding floodplain flows.

Flooding - The Project Site would not be located within a mapped 100-year floodplain. According to the General Plan Update DEIR, no dams are located in the vicinity of the City. The northeast portion of the City is protected by a system of levees along Lytle Creek, generally paralleling Riverside Avenue in a northwest-southeast direction. The northern portion of the City, generally north of Riverside Avenue and where Lytle Creek is most expansive, is considered to be subject to flooding hazards in the event of failure of part or all of the Lytle Creek – Island Levee System. Given the Project Site is located south of Riverside Avenue and the 210 Freeway and the unlikely failure of the levee, impacts regarding exposure of people or structures to a significant risk of loss, injury, or death involving flooding would be less than significant.

Inundation by Seiche, Tsunami, or Mudflow - A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, lake, or storage tank. A tsunami is a great sea wave, commonly referred to as a tidal wave, produced by a significant undersea disturbance such as tectonic displacement of the sea floor associated with large, shallow earthquakes. Mudflows result from the downslope movement of soil and/or rock under the influence of gravity.

The Project Site is not subject to tsunami hazards given the distance from the Pacific Ocean and elevation of the site relative to sea level. No open reservoirs or other large water bodies are located within or upstream of the Project Site. Therefore, the Project would not be subject to flooding hazards associated with seiches or tsunamis. The potential for mudflows to affect the proposed uses would be negligible given the distance of the nearest mountains from the Project Site and amount of intervening development. Furthermore, the gently sloping topography of the Project Site is not conducive to sustaining mudflows.

6. Land Use and Planning

Physically Divide an Established Community – While there are several developed residential, commercial, and public facility uses within the Project vicinity, no established communities are located within the Project Site that could be physically divided by Project implementation. Therefore, no impacts related to the physical division of an established community would result from the Project.

7. Mineral Resources

Loss of Availability of Mineral Resources - Although the Project Site is likely to contain aggregate materials, it is zoned for and surrounded by residential development on the western and

southern sides. The adjacent residential land uses are incompatible with mineral extraction activities, which entails heavy industrial activity and earth moving operations that create significant amounts of noise, dust, and heavy-truck traffic. Considering the existing development in the neighboring areas, it is unlikely that new mining operations on the site would ever be proposed or considered practical. Further, as discussed in Section 3.10 (Mineral Resources) of the General Plan DEIR, the City's General Plan does not support further or future development of aggregate or other mining facilities within the City. The City determined that expansion of surface mining activities in MRZ-2 areas would not be compatible with land use policies for these areas and thus preservation of these lands for mineral resource extraction was not proposed. This does not represent a conflict with the California Surface Mining and Reclamation Act of 1975 (SMARA), which requires a lead agency to consider, but not necessarily to preserve, potential mineral deposits. Based on these considerations, despite the site's potential for sand and gravel construction aggregate, impacts regarding mineral resources are concluded to be less than significant.

8. Noise

Airport Land Use Plans/Private Airstrips – The Project Site is not located within an airport land use plan or within two miles of a public airport, public use airport or private airstrip. The nearest airport, Rialto Municipal Airport, which closed in 2014, is located approximately 2.25 miles to the west. Therefore, the Project would not expose people residing or working in the Project area to excessive noise levels from such uses. No impact would occur in this regard.

9. Population and Housing

Population Growth – The Project's potential new residents would not result in a substantial increase in the local population as the increase in population would be within the SCAG and City of Rialto General Plan population estimates for the City.

Displacement of People or Housing - Project implementation would not displace existing housing or people. Therefore, no impact would occur to existing housing or local populations such that construction of replacement housing would be necessary.

10. Public Services

Fire Services – Fire protection, prevention, and emergency medicals services within the City of Rialto are provided by the Rialto Fire Department (RFD). The construction phases of the future developments would be short-term and would not permanently increase fire services demand or require construction of new facilities. A construction management plan for each future developments would be prepared in order to minimize disruptions to through traffic flow, maintain emergency vehicle access to the Project Site and neighboring land uses, and schedule worker and construction equipment delivery to avoid peak traffic hours (DF SERVICE-1).

Future development proposed within the Project Site would be subject to compliance with fire protection design standards, as necessary, per the California Building Code (CBC), California Fire Code (CFD), the Municipal Code, and the RFD, to ensure adequate fire protection.

Nonetheless, to offset any incremental need for funding of capital improvements to maintain adequate fire protection facilities and equipment, and/or personnel, the applicant of each future developments proposed within the Specific Plan would be responsible for paying development impacts fees per Title 3 – Revenue and Finance, Chapter 3.33 – Development Impact Fees, Section 3.33.220 – Fire Protection Facilities Development Fee of the Municipal Code (DF SERVICE-2). Based on the considerations above and inclusion of DF SERVICE-2, the increase in both direct and indirect population from the Project would not be substantial enough to significantly impact fire and emergency services on a daily or annual basis. No new fire protection facilities would be necessary as a result of Project implementation.

Design Features

DF SERVICE-1: ***Construction Management Plan*** – A construction management plan shall be developed by the applicant or contractor of each future developments proposed within the Specific Plan area and approved by the City of Rialto Public Works Department prior to construction activities. The construction management plan shall include, at a minimum, the following:

- Identify the locations of the off-site truck staging andprovide measures to ensure that trucks use the specified haul route, as applicable, and do not travel through nearby residential neighborhoods or schools;
- Schedule vehicle movements to ensure that there are no vehicles waiting off-site and impeding public traffic flow on surrounding streets;
- Establish requirements for loading/unloading and storage of materials on the Project Site;
- Coordinate with the City and emergency service providers to ensure adequate access is maintained to and around the Project Site; and
- During construction activities when construction worker parking cannot be accommodated on the Project Site, a Construction Worker Parking Plan shall be prepared which identifies alternate parking location(s) for construction workers and the method of transportation to and from the Project Site (if beyond walking distance) for approval by the City. The Construction Worker Parking Plan shall prohibit construction worker parking on residential streets and prohibit on-street parking, except as approved by the City.

DF SERVICE-2: ***Fire Fees*** – The applicant of each appliacble future developments proposed within the Specific Plan shall be responsible for paying development impacts fees per Title 3 – Revenue and Finance, Chapter 3.33 – Development Impact Fees, Section 3.33.220 – Fire Protection Facilities Development Fee of the Municipal Code.

Police Services - Police protection within the City of Rialto is provided by the Rialto Police Department (RPD). The construction phases of the future developments would be short-term and would not permanently increase police services demand or require construction of new facilities. Given the visibility of the Project Site from the 210 Freeway, adjacent roadways, and surrounding properties, existing police presence in the City, maintained emergency access, and construction fencing, individual future developments associated with the Project are not expected to increase demand on existing police services to a meaningful extent.

With development on the site, patrol routes in the area would be slightly modified to include the site; however, the RPD's current adequate response times would not be substantially changed such that response time objectives are compromised in any manner. No new police protection facilities would be necessary as a result of Project implementation. Further, to ensure that police protection considerations are incorporated in site-level plans, prior to the issuance of building permits for future development proposed as part of the Project, the RPD would be provided the opportunity to review and comment upon building plans in order to facilitate opportunities for improved emergency access and response, as necessary; ensure the consideration of design strategies that facilitate public safety and police surveillance; and other specific design recommendations to enhance public safety and reduce potential demands upon police protection services. Thus, impacts regarding police services would less than significant. Nonetheless, to offset any incremental need for funding of capital improvements to maintain adequate police protection facilities and equipment, and/or personnel, the applicant of each applicable future development within the Project Site would be responsible for paying development impacts fees per Title 3 – Revenue and Finance, Chapter 3.33 – Development Impact Fees, Section 3.33.210 – Law Enforcement Facilities Development Impact Fee of the Municipal Code (DF SERVICE-3).

Design Features

> **DF SERVICE-3: Police Fees** – The applicant of each appliacble future development proposed within the Project Site shall be responsible for paying development impacts fees per Title 3 – Revenue and Finance, Chapter 3.33 – Development Impact Fees, Section 3.33.210 – Law Enforcement Facilities Development Impact Fee of the Municipal Code.

Schools- The Project would be served by the Rialto Unified School District (RUSD). Pursuant to Senate Bill (SB) 50 (Section 65995 of the Government Code) and Title 17 – Subdivisions, Chapter 17.22 – School Facilities Fee, Section 17.22.120 – Facilities Fee and Section 17.22.140 – Dedication or Provision of Facilities in Lieu of Fees, of the Municipal Code, payment of fees to the RUSD is considered full mitigation for Project impacts, including impacts related to the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts (DF SERVICE-4). The current mitigation impact fees for the RUSD are $3.77 per square-foot for new residential assessable space and $0.54 per square-foot for commercial/industrial space.[11] With payment of fees at the current rate at the time of future development, the Project's impacts on schools would be less than significant.

Parks - The Project does not include public park facilities and would not result in the expansion of existing facilities. To offset the Project's demand for funding of capital improvements to maintain adequate park facilities and equipment, the applicant of each future residential development proposed within the Project Site would be responsible for meeting the parkland dedication and/or in-lieu fee requirements pursuant to the Quimby Act and Title 3 – Revenue and Finance, Chapter 3.33 – Development Impact Fees, Section 3.33.150 – Parks and Recreation Development Impact Fees and Title 17 – Subdivisions, Chapter 17.23 – Park and Recreational

[11] Iris Chu, Facilities Planning Director, Rialto Unified School District, Letter Correspondence, January 23, 2015.

Facilities Dedication of the Municipal Code (DF SERVICE-5). With implementation of DF SERVICE-5, impacts regarding parks would be less than significant.

Design Features

> **DF SERVICE-5: Parks** – The applicant of each future residential development proposed within the Project Site shall be responsible for meeting the parkland dedication or fee requirements pursuant to the Quimby Act and Title 3 – Revenue and Finance, Chapter 3.33 – Development Impact Fees, Section 3.33.150 – Parks and Recreation Development Impact Fees and Title 17 – Subdivisions, Chapter 17.23 – Park and Recreational Facilities Dedication of the Municipal Code.

Libraries – The San Bernardino County Library (SBCL), which includes a network of 32 branch libraries, provides library services to the City, including the Project Site. To offset the Project's incremental need for funding of capital improvements to maintain adequate library facilities and equipment, and/or personnel, the applicant of each applicable future development proposed within the Project Site would be responsible for paying development impacts fees per Title 3 – Revenue and Finance, Chapter 3.33 – Development Impact Fees, Section 3.33.200 – Library Facilities Development Impact Fee of the Municipal Code (DF SERVICE-6). With implementation of DF SERVICE-6, impacts regarding libraries would be less than significant.

Design Features

> **DF SERVICE-6: Library Fees** – The applicant of each applicable future development proposed within the Project site shall be responsible for paying applicable development impacts fees Title 3 – Revenue and Finance, Chapter 3.33 – Development Impact Fees, Section 3.33.200 – Library Facilities Development Impact Fee of the Municipal Code.

11. Recreation

Recreation and Park Facilities – The Project does not include recreational facilities. Operational activities associated with the future development proposed within the Project Site would increase demand for parks services. The nearest park, Frisbie Park, is located approximately 75 feet to the west of the Project Site. The Project includes a potential pedestrian connection to Frisbie Park, which would enhance access to the park. Another fourteen parks and recreational facilities are located within approximately four miles of the Project Site. Due to the proximity of the Project Site to numerous parks and recreational facilities, the effect of any one park would be nominal and distributed over the local vicinity, resulting in no substantial increase in demand to any one recreational facility. Accordingly, the Project would not substantially deteriorate, or accelerate the deterioration of recreational facilities or resources. Nevertheless, to offset the Project's demand on park facilities and services, the applicant of each residential future development proposed within the Project Site would be responsible for meeting the parkland dedication and/or in-lieu fee requirements pursuant to the Quimby Act and Title 3 – Revenue and Finance, Chapter 3.33 – Development Impact Fees, Section 3.33.150 – Parks and Recreation Development Impact Fees and Title 17 – Subdivisions, Chapter 17.23 – Park and Recreational Facilities Dedication of the Municipal Code (DF SERVICE-5). With implementation of DF SERVICE-5, impacts regarding parks and recreation facilities would be less than significant.

12. Transportation/Traffic

Air Traffic Patterns – The Project does not propose any structures that would interfere with air traffic patterns; nor would the Project increase use of any airport. Thus, no impact regarding air traffic patterns would occur with Project implementation.

Emergency Access - Immediate access to the Project vicinity is provided by the newly constructed Pepper Avenue extension. Emergency evacuation plans and procedures would be incorporated into the Specific Plan, and building design plans and emergency access and circulation would be subject to review and approval by the RFD.

While it is expected that the majority of construction activities for the Project would be confined on-site, short-term construction activities may temporarily affect access on portions of the adjacent street rights-of-way during periods of the day. A construction management plan for each future development would be prepared in order to minimize disruptions to through traffic flow, maintain emergency vehicle access to the Project Site and neighboring land uses, and schedule worker and construction equipment delivery to avoid peak traffic hours (DF SERVICE-1). The construction management plans would be prepared for review and approval by Public Works on a project-by-project basis prior to commencement of any construction activity. These practices, as well as techniques typically employed by emergency vehicles to clear or circumvent traffic, are expected to limit the potential for significant delays in emergency response times during construction of the future developments. Therefore, impacts regarding emergency response times and emergency access during construction would be less than significant with the incorporation of site-specific construction management plans.

13. Utilities and Service Systems

Wastewater Treatment Requirements –Under the SARWQCB NPDES permit system, all existing and future municipal and industrial discharges to surface waters within the City are subject to applicable local, State and/or federal regulations. Future developments proposed within the Project Site must comply with all provisions of the NPDES program and other applicable Waste Discharge Requirements (WDRs), as enforced by the SARWQCB. Therefore, implementation of the Project would not result in an exceedance of wastewater treatment requirements.

Build-out of the Project would not result in the discharge of wastewater to any surface waters. Instead, operational discharges would be sent to the sewer system, which would ultimately be treated at the Rialto Wastewater Treatment Plant (WWTP). The Rialto WWTP is required to comply with associated WDRs and any updates or new permits issued. WDRs set the levels of pollutants allowable in water discharged from a facility. Compliance with applicable WDRs would ensure that implementation of the future development proposed within the Project Site would not exceed the applicable wastewater treatment requirements of the SARWQCB with respect to discharges to the sewer system. As such, impacts would be less than significant in this regard.

Wastewater and Water Facilities - On-site sewer improvements and connections would be provided in consultation with the Rialto Water Services Department, with the applicant of each

applicable future development proposed within the Project Site responsible for payment of all sewer facility improvements and connection fees as set forth in Title 3 – Revenue and Finance, Chapter 3.33 – Development Impact Fees, Section 3.33.240 – Sewage Collection Facilities Development Impact Fee and Section 3.33.250 – Sewage Treatment Facilities Development Impact Fee of the Municipal Code (DF SEWER-2). The fees are utilized to fund wastewater treatment and regional wastewater infrastructure improvements associated with the Project. The necessary improvements would be verified through the permit approval process of obtaining a sewer capacity and connection permit from the City. Final engineering and design specifications for the lift station will need to consider the on-site constraints in order to adequately service the Project. Accordingly, DF SEWER-1 identifies the necessary sewer system upgrades with requirements that address the on-site constraints. With implementation of the applicable Specific Plan design features (DF SEWER-1 & -2), given existing and anticipated future capacity at the wastewater treatment facilities and wastewater generation expected from the Project, impacts regarding wastewater facilities would be less than significant.

On-site water system improvements and connections would be provided by the Project in consultation with the West Valley Water District (WVWD), with the applicant of each applicable future development proposed within the Project Site responsible for payment of all water facility improvements and connection fees as set forth in Title 3 – Revenue and Finance, Chapter 3.33 – Development Impact Fees, Section 3.33.260 – Domestic and Recycled Water Facilities Development Impact Fee of the Municipal Code (DF WATER-2). The fees are utilized to fund water infrastructure improvements associated with the Specific Plan. DF WATER-1 identifies the necessary water system upgrades with requirements that address on-site constraints. With implementation of the applicable Specific Plan design features (DF WATER-1 & -2), impacts regarding water infrastructure and facilities would be less than significant.

Design Features

DF SEWER-1: Sewer Infrastructure – The sewer system for the Project shall consist of two systems, the East and West systems. The East system shall gravity flow southerly within the future commercial development area (east of pepper Avenue) and then westerly to a proposed lift station on the east side of Pepper Avenue. The East system shall consist of 8-inch and 6-inch laterals. The West system (west of Pepper Avenue) shall gravity flow easterly towards Pepper Avenue and join an existing 12-inch VCP sewer line in Pepper Avenue.

An on-site sewer lift station on the east side of Pepper Avenue shall be required to pump sewage flows southerly via a force main into the gravity sewer system in Winchester Drive. The future lift station shall be sized to accommodate the peak sewer flows from the Project as well as any potential off-site future developments that may be tributary to the lift station, including the Caltrans-maintained area north of the 210 Freeway and south of Highland Area (which consists of 7.4 acres). Future development of this 7.4 acre area would likely add additional sewer flows of approximately 9 percent of the above peak flow to the lift station. Therefore, the proposed lift station shall be designed to accommodate the calculated peak flow plus 9 percent.

The on-site sewer system for the Specific Plan area may reach depths of 20-25 feet, therefore the future lift station shall be designed to have sufficient power to siphon sewer flows from these depths. Furthermore, there would be approximately 35-40 feet of vertical change and approximately 1,100 feet of horizontal length between the lift station and the point of connection into the existing sewer system in Winchester Drive. The final engineering and design specifications shall ensure the lift station can accommodate these constraints.

DF SEWER-2:Sewer Fees - The applicant of each applicable future development proposed within the Project Site shall be responsible for paying development impacts fees per Title 3 – Revenue and Finance, Chapter 3.33 – Development Impact Fees, Section 3.33.240 – Sewage Collection Facilities Development Impact Fee and Section 3.33.250 – Sewage Treatment Facilities Development Impact Fee of the Municipal Code.

DF WATER-1: Water Infrastructure – Future development within the Project Site shall provide connections to the water servicing line from both sides of Pepper Avenue. These future connections shall lie north of the WVWD Lord Ranch Facility and require either a direct connection to the existing 30-inch transmission line in Pepper Avenue or extending the 12-inch line to the connection points. The water system shall be designed to deliver the peak hour domestic demand to each service point with a residual pressure of 40 pounds per square inch (psi) and to deliver specified fire flow plus the peak day domestic demand with a minimum residual pressure of 20 psi. The fire flow requirement for the Project Site is 3,000 gallons per minute (gpm) for three hours (for commercial/office/high density residential areas). The maximum operating pressure in mains shall not exceed 130 psi with pressure reducers required on service connections having pressure greater than 80 psi. All water lines shall be looped where possible. All dead end lines shall not exceed 660 feet in length or the current design requirements at the time of design.

DF WATER-2: Water Fees - The applicant of each applicable future development proposed within the Project Site shall be responsible for paying development impacts fees per Title 3 – Revenue and Finance, Chapter 3.33 – Development Impact Fees, Section 3.33.260 – Domestic and Recycled Water Facilities Development Impact Fee of the Municipal Code.

Stormwater Facilities - The Project would include new stormwater drainage facilities that would be constructed in accordance with applicable regulatory requirements. The Project's new stormwater drainage facilities would not result in substantial adverse impacts related to the ability of any public utilities or infrastructure to serve the Project. Therefore, impacts would be less than significant.

Water Supply - The Project would fall within the 2010 San Bernardino Valley Regional Urna Water Management Plan (UWMP) available and projected water supplies. According to the UWMP, the water supplies available to the WVWD in normal, single dry, and multiple dry years, would be sufficient to meet all present and future water supply requirements within the WVWD's service area for at least the next 20 years, including the Pepper Avenue Specific Plan. Thus, Project impacts related to water supply would be less than significant.

Solid Waste – The Project's solid waste generation would be accommodated at regional landfills that serve the City. Solid waste generation would comply with applicable regulatory requirements to ensure impacts would be less than significant.

15. References

California Air Resources Board (CARB), 2004. *Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling*, Appendix F, July 2004, https://www.arb.ca.gov/regact/idling/idling.htm, accessed November 2016.

_____, 2014. EMFAC2014, *Mobile Source Emissions Inventory*, http://www.arb.ca.gov/msei/categories.htm#emfac, accessed November 2016.

California Air Pollution Control Officers Association (CAPCOA), 2010. Quantifying Greenhouse Gas Mitigation Measures, August 2010.

Cummins, 2014. *Cummins Tier-4-Final Field Test Showed 10% Lower Fuel Consumption*, March 5, 2014, http://www.cumminspacific.com/about/news/!content/2014/03/05/cummins-tier-4-final-field-test-program-exceeds-140-000-hours-gaining-valuable-experience-with-operators-on-site, accessed October 2016.

Mitsubishi Caterpillar Forklift America, Inc. (MCF), 2015. *Cat® Lift Trucks Introduces New Tier 4 Final Diesel Pneumatic Tire Lift Truck*, November 19, 2015. http://www.mcfa.com/mcfa/news/articles/cat/2015/Cat%20Lift%20Trucks%20Introduces%20New%20Tier%204%20Final%20Diesel%20Pneumatic%20Tire%20Lift%20Truck, accessed October 2016.

United States Energy Information Administration (USEIA), 2016a. "Table F3: Motor Gasoline Consumption, Price, and Expenditure Estimates," http://www.eia.gov/state/seds/data.cfm?incfile=/state/seds/sep_fuel/html/fuel_mg.html&sid=CA, accessed October 2016.

_____, 2016b. "Table F7: Distillate Fuel Oil Consumption Estimates," http://www.eia.gov/state/seds/data.cfm?incfile=/state/seds/sep_fuel/html/fuel_use_df.html&sid=CA, accessed October 2016.

CHAPTER 7
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