5 CUMULATIVE IMPACTS

This Subsequent EIR includes an analysis of "cumulative impacts" as required by CEQA (CEQA Guidelines Section 15130). Under CEQA, "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][1]). Cumulative impacts can result from "individually minor but collectively significant projects taking place over a period of time" (CEQA Guidelines Section 15355). An EIR must discuss cumulative impacts if the incremental effect of a project, combined with the effects of other projects, is "cumulatively considerable" (CEQA Guidelines Section 15130[a]). Such incremental effects are to be "viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects" (CEQA Guidelines Section 15164[b][1]). Together, these projects comprise the cumulative scenario for the cumulative analysis.

Both the severity of impacts and the likelihood of their occurrence are to be reflected in the discussion, "but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion of cumulative impacts shall be guided by standards of practicality and reasonableness, and shall focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact" (14 CCR § 15130[b]).

5.1 APPROACH TO CUMULATIVE IMPACT ANALYSIS

CEQA Guidelines Section 15130(b) presents two approaches for analyzing cumulative impacts:

- A list of past, present, and probable future projects producing related or cumulative impacts, including those projects outside the control of the agency; or
- A summary of projections contained in an adopted local, regional, or statewide plan, or related planning document that describes or evaluates conditions contributing to the cumulative effect. Such plans may include a general plan, regional transportation plan, or plans for the reduction of GHG emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program.

This Subsequent EIR utilizes a hybrid approach where a list of past, present, and probable future projects (collectively referred to as "cumulative projects") is considered in combination with the baseline conditions, agency projections, and adopted planning documents. The cumulative analysis considers, but does not exclusively rely on, planning documents to establish the cumulative scenario for the analysis.

The project list includes those projects found within the geographic scope of analysis (i.e., the study area) for each resource topic. The geographic scope over which the cumulative scenario is evaluated varies by environmental resource topic because the nature and range of potential cumulative impacts varies by resource. The geographic scope is based on the nature of the geography surrounding the Revised Project and the characteristics and properties of each resource and the region to which they apply. Each project in a region will have its own implementation schedule, which may or may not coincide with the Revised Project's schedule.

The discussion of cumulative impacts in this Subsequent EIR focuses on whether the incremental impacts of the Revised Project are cumulatively considerable when considering other, nearby projects. A cumulatively considerable impact means that the incremental impacts of an individual project are significant when viewed in context with the effects of past, present, and probable future projects (CEQA Guidelines Section 15065(a)(3)). The discussion of cumulative impacts in this Subsequent EIR follows these guidelines:

1. **Define the Relevant Geographical Area of Impact.**
   The relevant area affected for each impact category is defined, with a reasonable explanation supporting the geographic area used in the analysis.
   (CEQA Guidelines Section 15130(b)(3))
2. **Identify the Past, Present and Probable Future Projects Producing Related or Cumulative Impacts.**
   If a "list approach" is used, past, present, and probable future projects for each impact category are identified. All projects that might result in related impacts, not just similar sources or projects, are included.
   (CEQA Guidelines Section 15130(b)(1))
3. **Is There a Significant Impact to which Both the Revised Project and Other Projects Contribute?**
   The combined effects of both the Revised Project and the other identified projects that could result in an impact that is cumulatively significant are identified (*Communities for a Better Environment v. California Resources Agency* [2002] 103 Cal.App.4th 98, 120). This question has two parts: (1) is there a significant impact on the environment and (2) is the significant impact the result of the Revised Project combined with the effects of other projects? If the Revised Project does not contribute to the impact, or the combined impact is not significant, then it is not considered a significant cumulative impact. Mitigation is not considered at this point in the analysis.
4. **Is the Revised Project's Incremental Contribution Cumulatively Considerable?**
   If the answer to question 3 above is "no," the impact is discussed briefly with the basis for the determination set forth. If the answer to question 3 above is "yes," the Revised Project's incremental effect is assessed to determine if it is cumulatively considerable without mitigation. Even where the Revised Project might cause an "individually limited" or "individually minor" incremental impact that, by itself, is not significant, the Revised Project may nevertheless contribute to a cumulative impact if the contribution is "cumulatively

considerable" when viewed together with environmental changes anticipated from past, present, and probable future projects.
(CEQA Guidelines Sections 15064(h)(1), 15355(b))

5. **Would Mitigation Reduce the Revised Project's Cumulatively Considerable Contribution to a Less Than Significant Level?**
   If the Revised Project contributes to a significant cumulative impact (question 3, above) and if the Revised Project's contribution is cumulatively considerable (question 4, above), then the final question is whether mitigation would reduce the Revised Project's contribution to a less than cumulatively considerable level. Even though mitigation may render the Revised Project's contribution less than significant when viewed in isolation (i.e., at a project-specific level), the contribution that remains after mitigation may still be cumulatively considerable and, thus, not mitigated for cumulative impact analysis purposes. If the Revised Project's contribution is mitigated to a less than cumulatively considerable level, the impact is less than significant.
6. **What is the Significance of the Revised Project's Contribution to the Cumulative Impact?**
   The significance of the Revised Project's contribution to the cumulative impact is stated as either: (1) less than significant (i.e., less than cumulatively considerable); (2) less than significant with mitigation (i.e., the cumulatively considerable contribution has been eliminated or so small that it is no longer cumulatively considerable); or (3) significant and unavoidable.

5.2 CUMULATIVE SCENARIO PROJECTS

5.2.1 Cumulative Project List

Present and probable future projects that could contribute to the cumulative scenario are listed in Table 5.2-1. Past projects, including projects analyzed in the 2013 RTRP EIR that were completed, are considered part of the baseline condition that have contributed to the environmental setting for each resource topic as described in Chapter 4. Table 5.2-1 indicates the project name and type, a description of the project, its location, and its status. Figure 5.2-1 and Figure 5.2-2 show the locations of all identified projects in relation to the Revised Project. Each project has an assigned number that is keyed to Figure 5.2-1 and Figure 5.2-2.

Projects were identified through a review of websites; by contacting the surrounding local and state agencies (e.g., Caltrans, City of Jurupa Valley, City of Riverside, Riverside County); and by contacting private developers to inquire whether any projects were recently constructed, are being constructed, or are currently planned near the Revised Project or its alternatives. Cumulative projects were identified within an approximately 1-mile radius around all Revised Project components; however, additional projects outside of this radius were also considered if they were determined to be relevant to the geographic scope of a particular environmental resource topic (e.g., traffic and/or air quality).

Table 5.2-1 Cumulative Scenario Projects in the Revised Project Area

No. [1]	Project Name	Project Type	Project Components	Proximity to Revised Project	Status
1	Boatman Development (Lots 38 & 39)	Industrial/Commercial	Construction of a 147,990 square-foot business park with four buildings.	Approximately 1 mile north of Etiwanda Marshalling Yard	Entitlements approved in November 2015 and building permits submitted. Construction is currently on hold; projected construction completion by summer or fall 2018.
2	Space Center	Industrial/Commercial	Construction of two new industrial buildings of 606,112 square feet and 517,903 square feet.	Approximately 1 mile north of Etiwanda Marshalling Yard	Project approved by the Planning Commission in November 2017. Projected construction start date unknown; projected completion by 2019.
3	I-15 High Occupancy Toll Lane Project	Transportation	Construction of one to two toll express lanes in each direction between the I-15/Cajalco Road interchange and the I-15/State Route 60 interchange to improve traffic flow and reduce congestion. Construction is anticipated to be within existing Caltrans right-of-way with improvements occurring within the existing I-I5 median.	Less than 0.1 mile west of the Revised Project underground alignment	Construction is expected to begin in 2018 and toll express lanes are anticipated to open in mid-2020.
4	Pilot Flying J Travel Center	Commercial	Proposed truck travel center with a 15,220 square-foot building (convenience store, fast food restaurant, marketplace and deli).	Approximately 0.6 miles north of Etiwanda Marshalling Yard	Construction estimated to be completed by December 2018.

No. [1]	Project Name	Project Type	Project Components	Proximity to Revised Project	Status
5	Farmer Boys Development	Commercial	Development of an 8,000 square-foot retail commercial building with a drive-through on parcel 1 and a 4,908 square-foot retail commercial building on parcel 3.	Approximately 0.5 miles north of Etiwanda Marshalling Yard	Construction completion estimated in April 2018.
6	LBA Realty Industrial Building Major Development Review	Commercial	Construction for a 446,173 square-foot industrial building on approximately 24 acres and overflow parking.	Approximately 0.5 mile west of the Revised Project overhead alignment	Revised construction plans were approved December 2016. Project under construction. Construction completion anticipated in December 2018.
7	Circle City Substation and Mira Loma – Jefferson 66 kV Subtransmission Line	Public Infrastructure	Construction of a new 66/12-kV substation (Circle City Substation); four new 66-kV subtransmission source lines; and a new 66-kV subtransmission line, which would be a combination of both overhead and underground construction.	Approximately 1.3 miles west of the Revised Project overhead alignment	Environmental review by the CPUC currently under way. Southern California Edison proposed construction completion by 2021.
8	Frontier Communities/ Barrington Place (formerly Stratham/ Harmony Trails)	Residential	176 single-family subdivision	Adjacent to and east of the Revised Project overhead alignment	Entitlement has been approved. Construction schedule is not known.
9	William Lyons Homes/ Turnleaf	Residential	111 single-family subdivision with open space, 2.64-acre public park, street improvements, and a school	Adjacent to and east of the Revised Project overhead alignment	All improvements and infrastructure are complete; Construction of Phases 7 and 8 in progress. Construction completion anticipated in May 2020.

No. [1]	Project Name	Project Type	Project Components	Proximity to Revised Project	Status
10	Pulte Homes/ Serrano Ranch	Residential	Single- and two-story homes	Less than 0.1 mile south of Etiwanda Marshalling Yard and approximately 0.7 mile east of the Revised Project overhead alignment	Construction is 75 percent complete and anticipated to be completed between April and June 2019.
11	Jurupa Valley High School Safe Route to School Project	Public Infrastructure	Design within existing ROW of curb, gutter, and sidewalk on the west side of Martin and Troth Street, and north side of 48th Street. Dirt trails along east side of Martin Street and Troth Street, and south side of 48th Street where there is currently no pedestrian infrastructure. Placement of LED solar crosswalk flashers, bump outs, and ADA ramp at the Martin/Bellegrave intersection, and curb bump outs and ADA ramp at the Martin Street intersections, and 48th and Troth Street intersection.	Less than 0.3 mile southeast of Etiwanda Marshalling Yard	Project is in preliminary engineering phase. Construction is projected to occur in Summer of 2018.
12	Goodman Commerce Center (formerly Lewis Eastvale Commerce Center)	Commercial	Construction of a 190-acre plot for mix-usage of warehousing, light industrial, office, and retail.	Approximately 0.5 mile west of the Revised Project overhead alignment	Two building permits have been issued. Construction is expected to be complete by mid- to late-2018.

No. [1]	Project Name	Project Type	Project Components	Proximity to Revised Project	Status
13	Lesso Mall Development (formerly Thoroughbred Farms Business Park)	Commercial	Commercial mixed-use project to include malls, commercial/retail, office/business park, and hotels.	Immediately southwest of the Revised Project overhead alignment	Property to be built out in three phases with first phase construction estimated to start in late 2018 or early 2019.
14	Goodman Commerce Center Business Park (NEC of Bellegrave & Hamner)	Commercial	Development of the Business Park to include 8 buildings and approximately 191,356 square feet to accommodate professional offices, light industrial, and light assembly uses.	Approximately 0.7 mile west of the Revised Project overhead alignment	Construction has been completed.
15	Sky Country and Vernola Trust North Parcels	Residential, Commercial, and Industrial	Development of a mixed-use residential, commercial, and industrial development within approximately 199-acres of the I-15 Corridor Specific Plan.	Immediately north and west of the Revised Project underground alignment	Final development planning would take 12 to 18 months following CPUC decision on RTRP. Estimated construction in mid-2020 through 2023.
16	I-15/ Limonite Avenue Interchange Improvements Project	Transportation	Construction to widen Limonite Avenue to three lanes in each direction through the interchange area; widen the existing I-15 northbound and southbound on-and off-ramps; and replace the existing Limonite Avenue Overcrossing structure.	Immediately west of the Revised Project underground alignment	Construction is anticipated to start in mid-2018 and be completed by the end of 2019.

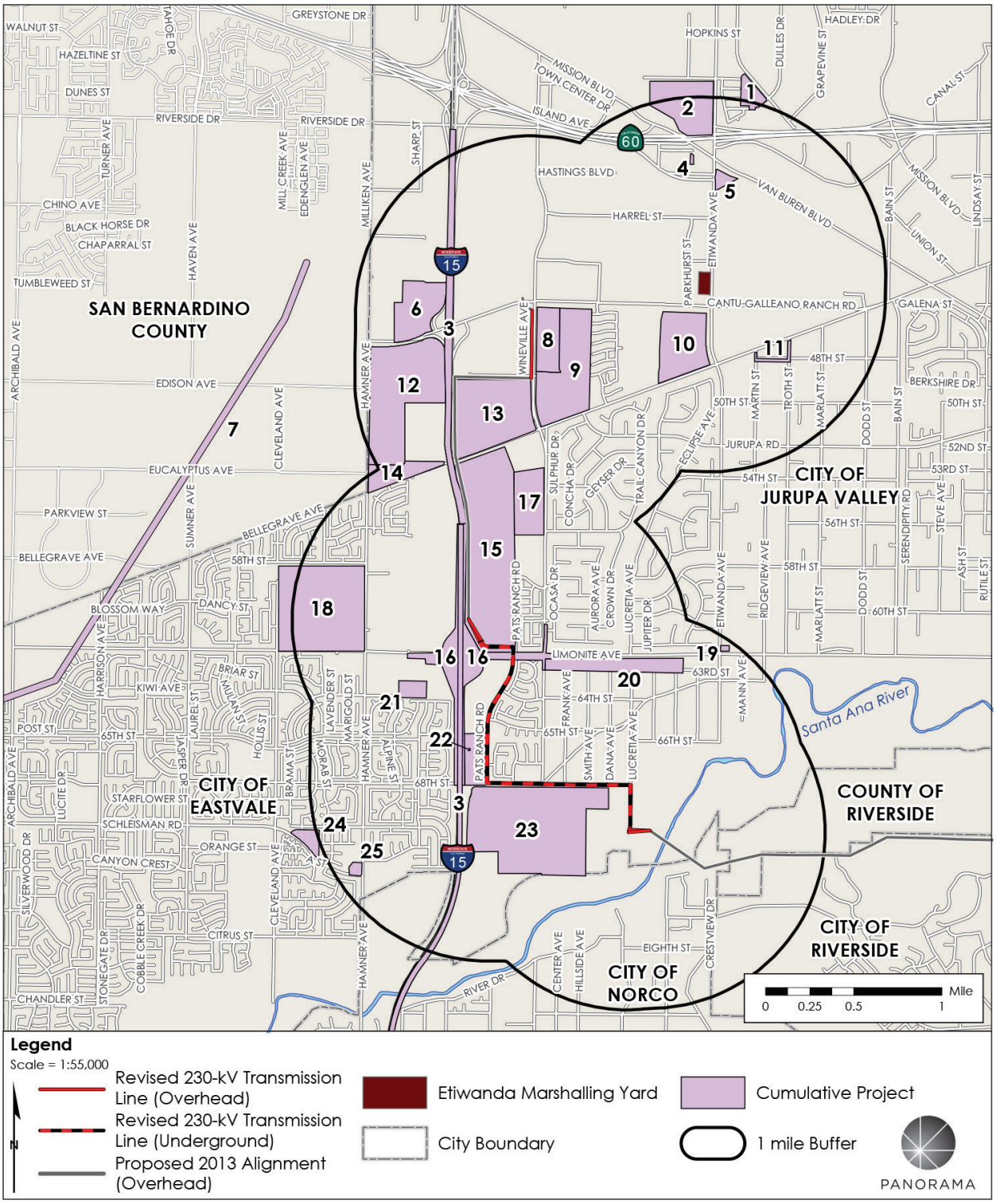
No. [1]	Project Name	Project Type	Project Components	Proximity to Revised Project	Status
17	Lennar Homes/ Harvest Villages Phase 3	Residential	Residential neighborhood (part of the I-15 Corridor Specific Plan).	Approximately 0.5 mile south of the Revised Project overhead alignment and 0.7 mile north of the Revised Project underground alignment	The project is mostly completed. Construction and occupancy of remaining homes anticipated by February 2019.
18	Leal Master Plan Special Project	Commercial	Development of a 161-acre property into a mix of commercial, office, hotel, civic, residential, recreation, and entertainment uses on land that is currently designated in the General Plan for residential and business park uses and zoned for agricultural uses.	Less than 0.7 mile west of Revised Project underground alignment	City has Planning Commission recommended approval to City Council on 9/16/2016. Projected construction start and completion dates are unknown; the project representative has requested that the City postpone action on the project.
19	Express Car Wash	Commercial	Drive-thru carwash with 17 vacuum stalls.	Approximately 0.9 mile east of Revised Project underground alignment	Project has been approved but inactive and unconstructed as of November 2017. Projected construction start and completion dates are unknown.
20	Wineville Marketplace	Residential	130 single-family residential homes, two retail centers, two linear parks, horse arena, and horse/pedestrian trails on approximately 34 acres	Approximately 0.2 mile east of the Revised Project underground alignment	Entitlements approved January 2017. Construction is projected to start in 2019 or 2020 and be completed by 2022.

No. [1]	Project Name	Project Type	Project Components	Proximity to Revised Project	Status
21	William Lyons Homes/NEXUS	Residential	220 residential units on a 10-acre site.	Less than 0.5 miles west of the Revised Project underground alignment	Final phase of construction starting in January 2018 and anticipated completion in August 2018.
22	Vernola Marketplace Apartments	Residential	397-unit multi-family residential apartment complex on 17.4 acres.	Immediately west of the Revised Project underground alignment	Final development planning would take 9 to 12 months following CPUC decision on RTRP. Estimated construction in late 2019 through 2021.
23	Lennar Homes/ Riverbend	Residential	464 single-family homes on 211 acres	Immediately south of the Revised Project underground alignment	Currently under construction. Full occupancy and project close out are anticipated in the third quarter of 2019.
24	DR Horton/ Cooper Sky	Residential	Part of the Master Home Plan for "Cooper Sky at Eastvale" residential development.	Approximately 1 mile southwest of the Revised Project underground alignment	Currently under construction. Anticipated completion of construction in 2018.
25	99 Cents Only Store (Project No. 13-1601)	Commercial	Construction of a new 19,104 square-foot standalone retail building on 2.67 acres and widening of Hamner Avenue between Schleisman Road and Fire Station No. 27	Approximately 0.8 mile southwest of the Revised Project underground alignment	Currently under construction. Anticipated completion of construction in 2018.
26	Riverside Agricultural Park	Residential	Approximately 109 residential lots on 62 acres	Immediately south of Distribution Line Relocation #7	Redevelopment has been on hold. Completing fieldwork and awaiting report and approval. Construction duration and timing are unknown.

No. [1]	Project Name	Project Type	Project Components	Proximity to Revised Project	Status
27	Rancho La Sierra Specific Plan	Residential	Up to 162 residential units interspersed among a 36-hole golf course located on 755 acres, constructed wetlands/agriculture would be located in several locations	Adjacent to and south of the Proposed Project overhead alignment	Adopted, no plans for construction

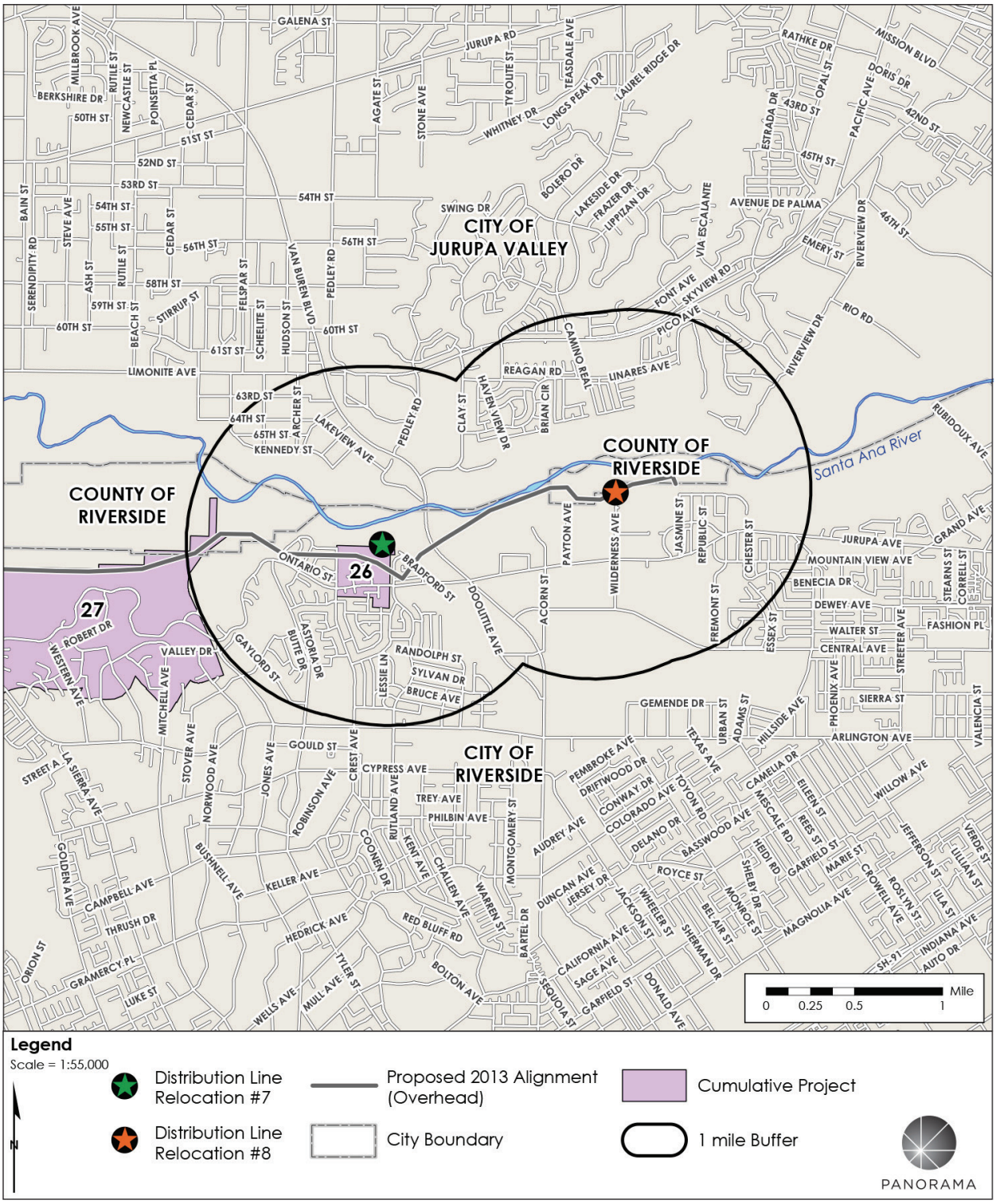
Sources: (City of Eastvale, 2017b; City of Eastvale, 2017a; City of Jurupa Valley, 2015b; City of Jurupa Valley, 2017a; City of Jurupa Valley, 2017b; City of Jurupa Valley, 2017c; Marcinek, 2017; Riverside County Transportation Commission, 2017; Riverside County Transportation Department, 2017; City of Eastvale, 2017c) (Lear, 2017; TRC, 2016; Urban Futures, Inc., 2015; Lennar Homes of California, Inc., 2015; McPhaul, 2017; Loriso, 2017; Smith, 2017; Tasnif-Abbasi, 2017; Tam, 2017; Martinez, 2017) (Russo, 2017; Lim, 2017; City of Eastvale, 2017d; City of Eastvale, 2017e; Norton, 2017; Parthenon Development LLC & JA Russo Enterprises Inc., n.d.; Norris, 2017; Du, 2017; Cartledge, 2017)

Figure 5.2-1 Cumulative Projects near the Revised Project (Map 1 of 2)



Sources: (ESRI, 2017; SCE, 2017; Google, Inc., 2017)

Figure 5.2-2 Cumulative Projects near the Revised Project (Map 2 of 2)



Sources: (ESRI, 2017; SCE, 2017; Google, Inc., 2017)

A total of 27 projects were identified near the Revised Project. Most of the cumulative projects are residential and/or commercial development projects. The remaining projects fall under the categories of public infrastructure, transportation, industrial, and recreational projects.

Collectively, the cumulative scenario projects represent known and anticipated activities that may occur near the Revised Project and have the potential to contribute to a cumulative impact.

5.2.2 Plans and Projections

The following planning documents and projections were considered in this cumulative impact analysis:

- City of Jurupa Valley 2017 Draft General Plan (City of Jurupa Valley, 2017)
- City of Riverside General Plan 2025 (City of Riverside, 2007)
- County of Riverside General Plan (County of Riverside, 2015)
- Western Riverside County Multiple Species Habitat Conservation Plan (Riverside County Integrated Project, 2003)
- South Coast Air Quality Management District Air Quality Management Plan (SCAQMD, 2017)

5.3 CUMULATIVE IMPACT ANALYSIS FOR THE REVISED PROJECT

5.3.1 Introduction

The following sections present the cumulative impact analysis for the Revised Project for each of the environmental resource topics included in Appendix G of the CEQA Checklist. Several environmental resource impact questions were originally screened out of Chapter 4 because their impacts were adequately addressed in the 2013 RTRP EIR (refer to the Initial Study Checklist in Appendix B). These impact questions are included in the cumulative analysis below because the existing cumulative scenario for those impacts has changed since the original cumulative analysis was conducted in the 2013 RTRP EIR.

The Revised Project would have no impact on Land Use and Mineral Resources; therefore, the Revised Project would not contribute to cumulative impacts on these resources. These resource topics and cumulative impacts on these resources are not discussed in the following cumulative analysis.

For each environmental resource topic, the geographic scope of the cumulative impact analysis is explained first. Next, the cumulative impacts and their severity are described. Finally, the CEQA impact significance is presented to define whether the Revised Project's contribution to cumulative impacts is considerable after considering applicable mitigation.

5.3.2 Aesthetics

Geographic Extent

The geographic extent for the analysis of cumulative impacts on aesthetic resources includes both local and regional viewsheds. Local cumulative effects could occur within the immediate Revised Project viewshed (projects, activities, and landscapes visible within the same field of view as the Revised Project) and could generally be visible along the Revised Project alignment. The project alignment would traverse a mix of land uses including residential, commercial, industrial, and open space preserves. The project area is generally flat with a few rolling hills and distant mountains visible to the north, south, and east. The natural, meandering Santa Ana River and associated riparian corridor, surrounding bluffs, and undeveloped hills establish a significant natural visual feature that bisects the project area. Dominant landmarks in the vicinity include the San Gabriel Mountains, Mount Baldy, the La Sierra Hills, and the Santa Ana River.

Regional cumulative effects occur when viewers perceive that the general visual quality or landscape character of a regional area is diminished by the proliferation of visible similar structures or construction effects, even if the changes are not within the same field of view as existing or known future structures or facilities. The result is a perceived "industrialization" or "urbanization" of the existing landscape character. Regional cumulative aesthetic impacts would occur within 1 mile or less of the Revised Project. Beyond 1 mile, structures become less distinct or not visible if they blend in sufficiently with background forms, colors, and textures. Also, beyond 1 mile it is likely that sightlines will become impaired or blocked by intervening terrain, vegetation, and structures. The geographic scope of the cumulative analysis therefore extends 1 mile from the Revised Project.

Impacts Avoided by the Revised Project

The Revised Project would not impact scenic vistas, scenic highways, or designated scenic roadways because no scenic vistas or designated scenic highways or roadways are located in proximity to the Revised Project. The Revised Project would therefore not contribute to cumulative impacts on scenic vistas or designated scenic highways or roadways.

Potential Cumulative Impacts

Degrade Visual Character or Quality

The current and probable projects listed in Table 5.2-1 include residential and commercial development, industrial, and transportation projects that would affect visual resources in the cumulative analysis study area. There are 24 probable future projects located within the geographic scope of the aesthetic cumulative analysis (1 mile). Construction schedules for each project indicate that 9 of the 24 cumulative projects may overlap with the Revised Project. Projects that would be constructed at the same time as the Revised Project may contribute to cumulative construction impacts (discussed below).

Of the projects within the geographic scope, two projects would not result in an impact (i.e., contrast with) on existing conditions. Jurupa Valley High School Safe Route to School

Project (#11) would involve minor upgrades to the existing roadway including sidewalks and drainage improvements, and Express Car Wash (#19) would involve construction of a similar facility in the location of an existing facility. Minor roadways improvements and a replacement facility would not change the existing landscape character or quality. The cumulative impacts of the remaining cumulative projects are described below.

Construction

Short-term cumulative impacts can occur if other projects within the same viewshed as the Revised Project are constructed at the same time as the Revised Project. Construction activities and/or equipment associated with more than one project that are visible within the same field of view and at the same time could create significant temporary impacts on the visual environment. The presence of construction equipment during Revised Project construction and potential concurrent construction of the cumulative projects in the local viewshed would contrast substantially with the existing landscape in residential, recreational, and open space areas. The Revised Project construction could last up to 26 months. During this time, construction equipment may be visible at any location along the project alignment; the cumulative development project construction near the transmission line would be nearly continuous over that time frame. The continuous construction of the cumulative projects would result in a cumulative impact because construction activities in multiple areas would affect the scenic quality of the landscape over an extended period. The cumulative views of construction equipment, vegetation removal, and earthwork would significantly impact visual quality.

Long-Term/Permanent Changes in Visual Quality

Permanent cumulative impacts on visual quality occur from land use conversions and the incremental loss of open space lands over time. Recent residential, commercial, and industrial development in the Revised Project vicinity contribute to this cumulative impact. Over the last 15 years, substantial development has occurred within Jurupa Valley, specifically within the viewshed of the Revised Project. Residential and commercial development projects, including the Lesso Mall Development (#13), Sky Country and Vernola Trust North (#15), Harvest Villages (#17), Vernola Market Apartments (#22), and Riverbend (#23), contribute to a regional loss of open space and agricultural land use, which has resulted in a significant cumulative impact on visual quality.

Lighting and Glare

Cumulative project construction may require nighttime lighting during the winter months when natural lighting is limited in the morning and evening hours. Additionally, housing developments would involve the creation of long-term lighting sources through the addition of street lighting and residential light sources. Residents may move into a newly-constructed home while the neighboring house is still under construction. Other nearby projects, like road improvements, may occur at the same that people are living in newly constructed homes. The cumulative projects would combine to result in an overall loss of nighttime darkness. The cumulative lighting impact would be significant.

Cumulative projects would introduce glass, which could create some glare at certain times of the day. The glare from the cumulative projects would not be additive because the projects would not concentrate glare in any area. The cumulative glare impact would be less than significant.

Revised Project Contribution to Potential Cumulative Impacts and Mitigation

Degrade Visual Character or Quality

Construction

The Revised Project would contribute to the cumulative construction impacts by adding visual impacts from vegetation clearing, steel pole and tower installation, conductor installation, and underground duct bank construction to the landscape. While construction activities would result in a high level of visual contrast, viewer sensitivity to the visual impact would be low due to the relatively short duration of exposure to construction views (6 to 8 weeks at a single location over the 26-month construction period). The Revised Project construction would not contribute considerably to a significant cumulative impact on visual quality.

Long-Term/Permanent Changes in Visual Quality

The Revised Project would have a minor contribution to the regional cumulative impact of the loss of open space in the project vicinity. The Revised Project would add large transmission towers, steel poles, and conductor within overhead Revised Project segments along Wineville Avenue, near Limonite Avenue, and within the Golf Course. The overhead infrastructure north of Limonite Avenue would be backdropped against the existing industrial facilities and freeway corridor. The Revised Project overhead transmission line within the Golf Course would be visible from within the Golf Course and from the southern side of the Santa Ana River. No cumulative projects would be visible within the same area as the Revised Project components in the Golf Course. The Revised Project's contribution to a cumulative visual impact would not be cumulatively considerable.

Lighting

The Revised Project would require nighttime lighting during construction during winter months when natural lighting is not adequate to work safely during construction hours. Use of temporary lighting would be limited to the hours between 7:00 am and 6:00 pm in Jurupa Valley and between 7:00 am and 7:00 pm in the City of Riverside, consistent with city-approved construction hours. Temporary construction lights would be used only where construction occurs, and lights would be powered off when construction sites are not active. SCE would schedule construction activities to occur during approved construction hours; however, it is possible for construction activities to extend beyond the approved hours in some circumstances (i.e., concrete pour). MM NOI-02 requires SCE to plan construction activities such that they do not extend beyond 6:00 pm in Jurupa Valley and 7:00 pm in the City of Riverside. The Revised Project would only require lighting for a maximum of approximately 1 hour in Jurupa Valley and only in the wintertime when the sun sets before the end of the construction work day. Due to the short duration of potential night lighting (both daily and seasonally), the Revised

Project's contribution to a cumulative night lighting impact in the area would be less than considerable.

5.3.3 Agricultural and Forestry Resources

Geographic Extent

The geographic extent for the analysis of cumulative impacts associated with agriculture is the entirety of Riverside County. This geographic extent accounts for regional cumulative impacts on agriculture, which is appropriate since agricultural production is a regional resource.

Impacts Avoided by the Revised Project

The Revised Project would not conflict with zoning for, or cause rezoning of forest land, timberland, or timberland zoned Timberland Production. The Revised Project would not conflict with any existing Williamson Act contract. The Revised Project also would not involve other changes in the existing environment that could result in the conversion of Farmland or forest land to nonagricultural or non-forest use.

Potential Cumulative Impacts

Riverside County has faced a trend of agricultural land loss in recent years. From 2010 to 2012, the total area of agricultural land in Riverside County was reduced from 539,829 to 536,611 acres, representing a net loss of approximately 0.5 percent (California Department of Conservation, 2015). From 2008 to 2010, the total area of agricultural land in Riverside County was reduced from 545,096 to 539,830 acres, a net loss of approximately 1 percent (California Department of Conservation, 2014). Within the cumulative impact area, the cumulative projects would result in conversion of all of the agricultural lands in the project vicinity (1 mile of the project area) to residential, commercial, and industrial uses. These land conversions have a significant cumulative impact on the conversion of agricultural land.

Revised Project Contribution to Potential Cumulative Impacts and Mitigation

The Revised Project would result in the permanent conversion of 0.3 acre of Farmland to nonagricultural use (refer to Section 4.2). This permanent conversion of agricultural land would occur within areas that would otherwise be converted from agricultural use by the Lesso Mall Development (#13) and Sky Country and Vernola Trust North (#15) if the Revised Project were not implemented. The Revised Project would not contribute to the cumulative impact because the project would not cause conversion of agricultural land beyond the conversion that would otherwise occur as a result of probable future projects.

5.3.4 Air Quality and Greenhouse Gas Emissions

Overview

While other resource topic sections focus only on the Revised Project, this air quality and GHG emissions analysis considers the entire Proposed Project (Mira Loma Substation to Wilderness Substation). No additional past, present, or probable future projects are located adjacent to the Proposed Project based on a review of the Plans and Projections identified in Section 5.2.2, above.

Geographic Extent

Air Quality

Air quality is a regional resource and is neither defined nor limited by jurisdictional boundaries, political boundaries, or project boundaries. The cumulative study area for air quality primarily encompasses activities within the same air basins as the Proposed Project, specifically SCAB. The cumulative impact from ambient air pollutant and CO concentrations, and TAC emissions on the health of sensitive receptors is substantially more localized. The geographic extent for cumulative impacts from CO emissions consists of intersections where peak cumulative traffic would occur. The geographic extent for cumulative projects is 1,000 feet, which is generally the distance within which TAC emission concentrations disperse and are no longer a significant health risk (CARB, 2005).

Greenhouse Gas Emissions

GHGs are global pollutants and have atmospheric lifetimes of up to several thousand years, which permits dispersal of GHGs around the globe. In contrast to air quality, which is generally a regional or local concern, human-caused emissions of GHGs have been linked to climate change on a global scale. The geographic extent for the GHG emissions cumulative analysis is therefore considered global (IPCC, 2013).

Impacts Avoided by the Proposed Project

The Proposed Project would not conflict with or obstruct implementation of the applicable air quality plan and would not contribute to any cumulative impacts from conflicts with the air quality plan. The Proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs and would not contribute to cumulative impact from conflicts with a plan, policy or regulation for GHG reduction.

Potential Cumulative Impacts

Regional Air Quality

Regional air quality is affected by all activities that occur within an air basin. SCAB is in nonattainment for ozone and particulate matter. In 2016, between 14 and 19 percent of air samples taken near the Proposed Project exceeded state PM_{10} ambient air quality standards, and approximately 1 percent of air samples exceeded federal $PM_{2.5}$ ambient air quality standards (SCAQMD, 2016).

Past and present projects in SCAB have resulted in the nonattainment status. The cumulative impact from past, present, and probable future projects on existing air quality violations in SCAB and criteria pollutants for which SCAB is in nonattainment would be significant.

Expose Sensitive Receptors to Substantial Pollutant Concentrations

Carbon monoxide hotspots, fugitive dust emissions, and diesel emissions have the potential to result in localized impacts. Vehicles and equipment used during construction and operation of the cumulative probable future projects would generate localized diesel and fugitive dust emissions near sensitive receptors. Many of the cumulative projects would affect the same sensitive receptors as the Proposed Project. Construction of the cumulative projects has the

potential to subject sensitive receptors to elevated ambient air pollutant concentrations and TAC emissions for a prolonged period. Dust and diesel emissions during construction of the cumulative projects could increase TAC emissions at adjacent residences located within 1,000 feet of the construction area. Frontier Communities Barrington Place (#8), Lesso Mall Development (#13), Wineville Marketplace (#20), Riverside Agricultural Park (#26), and Rancho La Sierra Specific Plan (#27) could be constructed concurrently with the Proposed Project. The cumulative impact from concurrent construction of several projects and associated temporary exposure to increased fugitive dust concentrations and TAC emissions is unknown but is conservatively assumed to be potentially significant.

Vehicle trip increases during construction and operation of cumulative projects could elevate CO emissions at intersections. CO concentrations due to past and present projects in SCAB have not resulted in an exceedance of state or federal standards since achieving attainment status in 2004 (CARB, 2016). Increased vehicle trips from construction and operation of probable future projects could increase CO concentrations at intersections in the Proposed Project area; however, construction traffic would not reduce the LOS at any intersection to E or F, and construction activities would not result in CO concentrations in excess of air quality standards. The cumulative impact on sensitive receptors from CO concentrations would be less than significant.

Odors

The cumulative projects include residential, commercial, and industrial facilities. None of the cumulative projects are anticipated to produce substantial odors. The cumulative impact on odors would be less than significant.

Greenhouse Gases

Impacts from GHG emissions on climate change are inherently cumulative. Past, present, and probable future projects worldwide contribute or would contribute to the cumulative conditions for GHG emissions. The cumulative impact from GHG emissions would be significant.

Proposed Project Contribution to Potential Cumulative Impacts and Mitigation

Regional Air Quality

Cumulative impacts on regional air quality are addressed by the SCAQMD mass daily and ambient air quality thresholds of significance for emissions in SCAB because SCAQMD considered all past, present, and probable future projects when setting the thresholds of significance. The significance thresholds represent the levels at which a project's individual emissions of criteria air pollutants and precursors would result in a cumulatively considerable contribution to the existing nonattainment designations. If a project's emissions exceed the numerical thresholds in SCAB, the project would considerably contribute to the cumulatively significant air quality impact. If a project's emissions do not exceed the numerical thresholds in SCAB, the project would not contribute considerably to the cumulatively significant air quality impact (SCAQMD, 2017).

Combustion and fugitive dust emissions generated during construction of the Proposed Project would exceed the SCAQMD thresholds for criteria air pollutants (refer to Impact Air-b). The Proposed Project's contribution to a significant cumulative impact on regional air quality would be considerable. Implementation of EPE AQ-01 (Comply with SCAQMD Requirements), EPE AQ-02 (Worker Environmental Awareness Program), MM AQ-01 (Fugitive Dust Control Plan), and MM AQ-02 (Exhaust Emissions Control), MM AQ-03 (Overlap of Construction Activities) would reduce criteria air pollutant emissions generated during construction of the Proposed Project to below the SCAQMD significance thresholds (refer to Section 4.3: Air Quality and Greenhouse Gas Emissions for the full text of EPEs and mitigation measures). The Proposed Project's contribution to a potentially significant cumulative impact on regional air quality would be less than cumulatively considerable with mitigation.

Expose Sensitive Receptors to Substantial Pollutant Concentrations

TAC emissions generated during construction of higher intensity activities (e.g., vault installation and trenching) would not affect sensitive receptors at any one location for greater than 2 continuous months and would not contribute to a significant cumulative impact on sensitive receptors. Combustion and fugitive dust emissions generated during construction of the underground and overhead 230-kV transmission line would exceed SCAQMD thresholds for ambient air concentrations known to exacerbate health conditions (refer to Impact Air-d). The Proposed Project's contribution to a significant cumulative impact on sensitive receptors from exceedances of ambient air concentrations would be considerable. Implementation of EPE AQ-01 (Comply with SCAQMD Requirements), EPE AQ-02 (Worker Environmental Awareness Program), MM AQ-01 (Fugitive Dust Control Plan), and MM AQ-02 (Exhaust Emissions Control) would reduce ambient air pollutant concentrations to below the SCAQMD significance thresholds (refer to Section 4.3: Air Quality and Greenhouse Gas Emissions for the full text of EPEs and mitigation measures). The Proposed Project's contribution to a potentially significant short-term cumulative impact on sensitive receptors would not be cumulatively considerable with mitigation.

Greenhouse Gases

SCAQMD considered the cumulative global impact of GHGs when setting the threshold of significance for construction emissions of GHGs. The SCAQMD GHG threshold represents the levels at which a project's individual emissions of criteria air pollutants and precursors would result in a cumulatively considerable contribution to global GHGs. The SCAQMD GHG emissions threshold is 10,000 MT CO_2e per year.

Use of vehicles and equipment during construction of the Proposed Project would generate GHG emissions. GHG emissions from construction of the Proposed Project would not exceed the SCAQMD GHG emissions threshold of 10,000 MT CO_2e per year, as analyzed in the 2013 RTRP EIR. The Proposed Project's contribution to GHG emissions would not be cumulatively considerable (refer to Appendix G for details).

5.3.5 Biological Resources

Geographic Extent

The geographic extent for the biological resources cumulative analysis includes the Western Riverside County MSHCP planning area because conservation and biological resources protection efforts are coordinated at a regional level within the planning area.

Impacts Avoided by the Revised Project

The Revised Project would not result in new or increased potentially significant impacts on the movement of any native resident or migratory fish or wildlife species, established native resident or migratory wildlife corridors, the use of native wildlife nursery sites, or conflict with an adopted HCP or NCCP. The Revised Project would not contribute to cumulative impacts on these resources.

Potential Cumulative Impacts

Many past, present, and probable future development projects contribute or would contribute to the cumulative conditions for biological resources within the cumulative analysis study area. The types of projects that could combine to result in cumulative impacts to biological resources include residential, commercial, industrial, infrastructure, and transmission projects.

Habitat Modifications

Construction and operation of numerous past and present projects within the area have resulted in significant changes to the vegetation communities of the region. These past and present projects have resulted in direct and indirect impacts on vegetation communities through ground disturbance, vegetation removal, the introduction of non-native invasive plant species, hydrologic alteration, the creation of fugitive dust, the disturbance or destruction of wetlands and riparian habitats, and permanent land use conversion. Riverside County contains diverse flora and fauna that includes many rare, threatened, and endangered species including narrow endemic communities. Riverside County provides habitat for several special-status plants and animals including species listed under the federal ESA, CESA, or both. The development of past residential, commercial, industrial, and infrastructure projects has led to a reduction in habitat for native vegetation and wildlife and the subsequent federal and state listing of several species.

Cities and counties in the cumulative project area are permittees under the Western Riverside MSHCP. The Western Riverside MSHCP is designed to address cumulative impacts on all covered special-status species including sensitive habitats. Projects approved by the City of Jurupa Valley or City of Riverside would implement all mitigation required by the MSHCP. The MSCHP would ensure that the cumulative loss of habitat for special-status species in the cumulative project area is less than significant.

Riparian Habitat and Wetlands

The cumulative projects in the Western Riverside MSHCP planning area could result in impacts on riparian habitat and wetlands. Cities and counties in the cumulative project area are permittees under the Western Riverside MSHCP. Projects approved by permittees of the

MSHCP would implement all mitigation required by the MSHCP. The Western Riverside MSHCP includes requirements for avoidance of riparian and wetland areas or compensation through a DBESP. Implementation of the measures in the MSHCP would ensure that the cumulative impact on riparian habitat and wetlands would be less than significant.

Conflict with Local Policies for Protection of Biological Resources
The cumulative projects identified within the geographic scope would occur within the County of Riverside and the cities of Banning, Beaumont, Calimesa, Canyon Lake, Corona, Hemet, Lake Elsinore, Moreno Valley, Murrieta, Norco, Perris, Riverside, San Jacinto, and Temecula. These cities and Riverside County have adopted policies to project biological resources, including wetlands, native vegetation, and habitat that supports special-status species. All of these cities and counties have signed the MSHCP implementing agreement and are implementing a regional approach to the protection of biological resources. The cumulative projects would avoid conflicts with local policies for the protection of biological resources because projects would have to protect biological resources through implementation of the MSHCP. The cumulative projects would not result in a significant cumulative impact from conflicts with local biological resource protection policies.

Conflict with MSHCP
The City of Riverside and County of Riverside have participated in the development and implementation of the MSHCP. The MSHCP covers the range of habitats and species that would be impacted by the cumulative projects in the region. The City of Jurupa Valley is a signatory to the Joint Powers Agreement, which requires implementation of the MSHCP. All projects that are approved by the City of Jurupa Valley would need to comply with the MSHCP. The Revised Project would also be subject to the conditions of the MSHCP because the City of Riverside is an implementing agency under the MSHCP. No cumulative impact from conflicts with the MSHCP would occur.

5.3.6 Cultural, Paleontological, and Tribal Cultural Resources

Geographic Extent
The geographic extent for the cultural and tribal cultural resources cumulative analysis includes the open space areas within the adjacent Santa Ana river corridor. Historic ranges of Native American tribes extended beyond these areas and included the entirety of the Santa Ana River trading route. Most of this range has been developed, reducing the likelihood that tribal cultural resources remain in these developed areas. The remaining open space areas in the Santa Ana River corridor adjacent to the Revised Project represent locations where construction of the Revised Project could have a potential impact on currently existing cultural and/or tribal cultural resources, and where those impacts could combine with the impacts of other cumulative projects. The Revised Project area is not located in a designated historic or archaeological district.

The geographic extent for the cumulative paleontological resources analysis is the extent of the potential fossil-bearing geologic units in the area.

Potential Cumulative Impacts

Historical and Archaeological Resources
No known cultural resources have been identified within or adjacent to the Revised Project area. None of the cumulative projects are located in areas along the Santa Ana River that are sensitive for archaeological resources. The potential cumulative impact on archaeological or historical resources would be less than significant because the cumulative projects and Revised Project would not affect any known cultural resource sites and the cumulative projects are located in areas that were previously developed or disturbed by agricultural activity.

Paleontological Resources
Several of the cumulative projects are located in areas with high sensitivity for paleontological resource (areas with quaternary alluvium). The cumulative projects could result in a significant cumulative impact on paleontological resources due to the large area of grading and excavation within paleontologically sensitive areas.

Human Remains
No cemeteries or burial locations are known to occur within the cumulative project area. No cumulative impact on human remains would occur.

Tribal Cultural Resources
Two cumulative projects occur within the tribal cultural resources cumulative analysis area: the Lennar Homes Riverbend Project (#23) and the Riverside Agricultural Park Project (#26). These are both residential development projects that would involve ground-disturbing activities. A significant cumulative impact on tribal cultural resources could occur if the construction of these projects impacted several resources in the cumulative analysis area containing similar information about a particular tribe or time period because the effect could result in the loss of cultural history.

Revised Project Contribution to Potential Cumulative Impacts and Mitigation

Construction of the Revised Project would involve ground-disturbing activities that could impact previously unidentified paleontological or tribal cultural resources. A cumulatively considerable contribution to a significant cumulative impact could occur if the Revised Project impacted resources containing similar information about a particular tribe or time period as those impacted by the cumulative projects. The Revised Project's contribution to a significant cumulative impact would be reduced through the implementation of EPE CUL-03 through EPE CUL-05 and MM CUL-03 through MM CUL-11 (refer to Section 4.5: Cultural, Paleontological, and Tribal Cultural Resources). Implementation of these measures would reduce the likelihood of impacting a previously undiscovered resource and would provide specified methods for the treatment and documentation of a resource should one be discovered. The Revised Project's contribution to a potentially significant impact on paleontological and tribal cultural resources would be less than considerable after the implementation of EPE CUL-03 through EPE CUL-05 and MM CUL-03 through MM CUL-11.

5.3.7 Geology and Soils

Geographic Extent

The geographic extent for the analysis of cumulative impacts associated with geology and soils is the area within 0.5 miles of the Revised Project. This area represents the extent to which nearby projects could combine with the Revised Project to contribute to slope instability or geologic hazards.

Impacts Avoided by the Revised Project

The Revised Project would not involve soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems and therefore would not contribute to cumulative impacts in these areas.

Potential Cumulative Impacts

Seismic Hazards

Impacts related to seismic hazards and problematic soils result from the geologic characteristics of an area and are generally unrelated to past, present, and reasonably foreseeable development projects and human activity. Cumulative projects would not combine to create a significant cumulative impact with respect to seismic hazards and unstable or expansive soils.

Soil Erosion

The types of projects that could combine to result in adverse cumulative impacts on soil erosion include residential, commercial, and infrastructure projects. Projects within the cumulative analysis study area include the following:

- I-15 High Occupancy Toll Lane Project (#3)
- Farmer Boys Development (#5)
- LBA Realty Industrial Building Major Development Review (#6)
- Frontier Communities/Barrington Place (#8)
- William Lyons Homes/Turnleaf (#9)
- Pulte Homes/ Serrano Ranch (#10)
- Jurupa Valley High School Safe Route to School Project (#11)
- Goodman Commerce Center (#12)
- Lesso Mall Development (#13)
- Sky Country and Vernola Trust North Parcels (#15)
- I-15/ Limonite Avenue Interchange Improvements Project (#16)
- Lennar Homes/ Harvest Villages Phase 3 (#17)
- Wineville Marketplace (#20)
- William Lyons Homes/ NEXUS (#21)
- Vernola Marketplace Apartments (#22)
- Lennar Homes/ Riverbend (#23)
- Riverside Agricultural Park (#26)

Construction and operation of the cumulative projects within the study area would result in soil loss. Earth movement, mass grading, excavation, and vegetation clearance during construction would expose soils, which would subject them to increased erosion and sedimentation from wind and water. Any cumulative project that disturbs more than 1 acre of land is required to comply with the 2010 MS4 permit. The MS4 permit requires implementation of sediment and

erosion control BMPs and stormwater and erosion control management practices to prevent erosion. Through implementation of proper source control and treatment measures as required in the MS4 permit, the cumulative impact on soil loss would be less than significant.

5.3.8 Hazards and Hazardous Materials

Geographic Extent

The geographic scope for the analysis of cumulative impacts associated with hazardous materials is the area within approximately 0.25 mile of the Revised Project. This geographic scope is appropriate because the effects of hazardous material releases are often highly localized due to the need to quickly contain any spills. This scope accounts for potential dig-ins to buried utility lines carrying hazardous materials.

The geographic scope for the analysis of cumulative impacts on airport hazards is the entirety of the Airport Influence Area for the Riverside Municipal Airport. This scope accounts for all the cumulative projects that could potentially combine to create a hazard for air traffic operations for this airport.

The geographic scope for the analysis of cumulative impacts on emergency response and evacuation plans is the area within 1 mile of the roads impacted by the Revised Project (Pats Ranch Road and 68th Street). This geographic scope is appropriate because detours could cumulatively affect emergency response times if they are located in proximity to each other.

Impacts Avoided by the Revised Project

The Revised Project would not impact hazardous materials sites included on the Cortese List. The Revised Project would not be located within the vicinity of a private air strip and would have no impact on private air strips. The Revised Project would not interfere with an adopted emergency response or evacuation plan. The Revised Project would not contribute to potential cumulative impacts on these resources.

Potential Cumulative Impacts

Hazardous Emissions and Materials

Several present and probable future development projects within the cumulative analysis area would require the use of hazardous fuels and materials during construction and operation or would increase the transport of materials through the area due to increased highway capacity. These projects include commercial and residential development (e.g., Frontier Communities/ Barrington Place [#8], Lesso Mall Development [#13]), and transportation projects (e.g. I-15 Toll Lane Project [#3]). The use or transport of hazardous materials could result in the accidental release of hazardous materials. The effects from the accidental release of hazardous materials or damage to underground utilities, however, would be highly localized and would be cleaned up immediately as required by law. The potential impact from accidents and hazardous material releases would not combine and would not be cumulatively significant.

One project (I-15/ Limonite Avenue Interchange Improvements Project [#17]) has the potential to encounter an underground natural gas pipeline during excavation along Limonite Avenue. Because this project would be constructed at a different time than the Revised Project, no cumulative impacts from release of hazardous materials from a utility pipeline could potentially occur.

Airport Safety Hazard
Construction of the Revised Project would occur within the Airport Influence Area for the Riverside Municipal Airport. Cumulative projects located within the Airport Influence Area that may pose a potential airport safety hazard are subject to review by the Federal Aviation Administration before they can be approved for construction. Any project that represents a potential airport safety hazard either would not be approved or would have to be modified or mitigated to remove the safety hazard. Because all cumulative projects are subject to review and approval by the Federal Aviation Administration, no significant cumulative impact on airport safety hazards would occur.

Wildland Fires
The cumulative projects are located in areas developed by residential, commercial, industrial, or agricultural land uses. Cumulative projects are not located adjacent to wildlands or open space areas. The cumulative projects would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. The cumulative impact would be less than significant.

Shock Hazards
The Circle City Substation and Mira Loma–Jefferson 66-kV Subtransmission Line Project (#7) would construct a new 66/12-kV substation, four new 66-kV subtransmission source lines, and a new 66-kV subtransmission line, which could introduce new shock hazards to workers or the public. However, shock hazards from transmission lines are highly localized and only affect pipelines that are parallel or crossing the pipeline. The Circle City Substation and Mira Loma-Jefferson 66-kV Subtransmission Line Project is located 1.3 miles away from the Revised Project and is not parallel to the same utility lines. The two projects could not result in a cumulative shock hazard. No cumulative impact would occur.

5.3.9 Hydrology and Water Quality

Geographic Extent
The geographic extent for the hydrology and water resources cumulative analysis is the Santa Ana River watershed. This extent includes the water resources that would be affected by the Revised Project, as well as any downstream receiving water and upland contributing area related to those water resources. This extent is appropriate because impacts on water resources only have a potential to cumulatively combine with other impacts in the same watershed.

Impacts Avoided by the Revised Project

The Revised Project would have no potential to cause inundation by seiche, tsunami, or mudflow and would not contribute to cumulative impacts on these resources.

Potential Cumulative Impacts

Water Quality Standards and Waste Discharge Requirements

The Revised Project drains to the Santa Ana River, middle Reach 3. Water quality within Reach 3 of the Santa Ana River has been impacted by past and present projects including agricultural use, and the reach is impaired for nitrate and pathogens (Waterboards Santa Ana - R8, 2017). The past and present projects have resulted in a significant cumulative impact on water quality standards, which require implementation of a TMDL. The cumulative impact on water quality standards is significant.

Groundwater Supply

The cumulative projects would require temporary use of water for dust control and/or compaction. Operation of the cumulative residential, commercial, and industrial projects would increase long-term water demand. Domestic water in the Revised Project area is supplied by the JCSD. The sole source of water for the JCSD is treated groundwater (Jurupa Community Services District, 2018). The cumulative projects would add a substantial number of new water users to the JCSD service territory, which could result in a significant cumulative impact on groundwater supplies in the area. The cumulative impacts on groundwater supply would be potentially significant.

Groundwater Recharge

Groundwater recharge in the cumulative project area primarily occurs from percolation of precipitation and infiltration along Day Creek, East Etiwanda, San Sevaine, and Victoria recharge facilities, and by underflow of groundwater from adjacent basins (DWR, 2006). The cumulative projects would not create any impervious surfaces along the aforementioned features or recharge facilities. The cumulative impact on groundwater recharge would be less than significant.

Increased Runoff

Residential and commercial development would increase the area of impervious surfaces within the cumulative analysis area. Increased impervious surface could alter the rate and amount of surface water runoff in the cumulative analysis study area.

Construction of cumulative projects that disturb more than 1 acre would require coverage under the 2010 MS4 Permit. The MS4 requires preparation of a Hydromodification Management Plan, which requires management of runoff volumes so that the runoff does not exceed pre-project conditions. Compliance with the MS4 permit would avoid significant cumulative impacts from increased runoff. The cumulative impact on runoff would be less than significant.

Alteration of Drainage Patterns
The cumulative projects would involve mass grading, which could redirect drainage within the project development areas. The projects would also involve new improvements to the storm drain system, which could redirect drainage downstream of the cumulative project area by passing the water into the storm drain system. The cumulative projects all drain to the Santa Ana River, and the minor redirection of runoff from the cumulative projects would not change the overall drainage pattern in the area. As such, a substantial increase in siltation or flooding would not occur. The cumulative impact on drainage patterns would be less than significant.

Redirect Flood Flows
Several cumulative development projects (Sky Country and Vernola Trust North [#15], Harvest Villages [#17], Wineville Marketplace [#20], Vernola Market Apartments [#22], and Riverbend [#23]) would be constructed in the 100-year flood plains of Day Creek and the Santa Ana River. Construction of residential and commercial buildings within the flood plains could impede or redirect flood flows. The cumulative projects would result in a potentially significant cumulative impact on flooding.

Revised Project Contribution to Potential Cumulative Impacts

Water Quality Standards and Waste Discharge Requirements
Construction, operation, and maintenance of the Revised Project would not produce pathogens or nitrate and would not contribute to the existing cumulative impact on water quality standards.

Groundwater Supply
Construction of the Revised Project would require water for dust control, drinking, and sanitation throughout construction. Water for construction could be obtained from the JCSD, which is supplied from groundwater (JCSD, 2018). The use of groundwater during construction would be temporary, and the project would not require any permanent or long-term use of groundwater. Groundwater supplies would be recharged after construction is complete due to the small volume of total water required and short duration of use. The Revised Project's contribution to cumulative impacts on groundwater supplies would be less than considerable.

Redirect Flood Flows
Construction of the Revised Project would involve installation of two riser poles in the 100-year flood plain of the Santa Ana River. The riser poles would be approximately 10 feet in diameter. Flood flows would be expected to pass around the proposed riser poles instead of redirecting flows away from the area. The Revised Project's contribution to a cumulative impact on flooding would be less than considerable.

5.3.10 Noise

Geographic Extent
The geographic extent for the analysis of cumulative impacts associated with noise is limited to areas within 0.5 mile of the Revised Project components. This geographic extent is appropriate

because noise levels attenuate rapidly with distance, and the noise generated by activities greater than 0.5 mile from the Revised Project would not combine with the noise generated by Revised Project.

Impacts Avoided by the Revised Project

The Revised Project is not located within the vicinity of a private airstrip and would not contribute to cumulative impacts on this resource.

Potential Cumulative Impacts

Exceed Local Noise Ordinances

Construction

The cities of Jurupa Valley and Riverside noise ordinances include exemptions for construction that occurs between city-approved construction hours (refer to Section 4.10: Noise). The majority of residential, industrial, and commercial cumulative projects would involve daytime construction that occurs within the noise-exempted hours and would not exceed local noise ordinances. Transportation projects, such as the I-15 High Occupancy Toll Lane Project (#3) and the I-15/Limonite Avenue Interchange Improvements Project (#15), may involve nighttime construction for safety purposes. Construction of these projects is expected to be completed prior to construction of the Revised Project. No cumulative impact from violation of noise ordinances would occur.

Long-Term Noise Levels

Commercial and residential projects would generally generate noise during daytime hours, would be consistent with noise levels anticipated for commercial and residential land uses, and would not violate noise standards. The industrial cumulative projects would be located with existing industrial land uses and would not impact the same receptors as the Revised Project. There would be no cumulative long-term impact from violation of noise ordinances.

Groundborne Vibrations

Groundborne vibrations are highly localized impacts. None of the cumulative projects involve elements that would result in long-term increases in groundborne vibration (e.g., trains). The cumulative projects would only generate groundborne vibrations during construction. Groundborne vibrations attenuate very rapidly with distance. No cumulative projects would be constructed at the same time within a distance where groundborne vibrations could be experienced (i.e., 50 feet). No cumulative impact from groundborne vibration would occur.

Temporary Noise Increase

The construction timing of the following cumulative projects could overlap with that of the Revised Project to cause a temporary increase in ambient noise levels:

- Frontier Communities/ Barrington Place (#8)
- Lesso Mall Development (#13)
- Sky Country and Vernola Trust North Parcels (#15)
- Vernola Marketplace Apartments (#22)
- Riverside Agricultural Park (#26)

Temporary increases in ambient noise levels would occur due to the use of heavy equipment, such as cranes, trucks, graders, compactors, dozers, excavators, backhoes, and helicopters, and the operation of smaller equipment, such as light-duty vehicles, concrete saws, jackhammers, compressors, generators, and welders. The combined construction noise of the cumulative projects could periodically raise ambient noise levels by more than 10 dBA. The cumulative increase in ambient noise levels would impact the same sensitive receptors as the Revised Project, which include residences, schools, and public parks (refer to Section 4.10: Noise). The cumulative impact would be significant.

Long-Term/Permanent Changes in Ambient Noise Levels

The cumulative projects include residential, commercial, and transportation projects that would introduce increased vehicle traffic to the cumulative analysis study area. Residential development projects occurring in land that was previously undeveloped as well as the increase in highway capacity at I-15 would contribute to increased traffic volumes in the area. A cumulative noise impact is considered significant if it exposes a sensitive receptor to an audible permanent increase in noise levels. A doubling of sound energy is required to create a noticeable change (+/- 3 dBA) in noise levels. In this case, traffic volumes on roadway segments located in the cumulative analysis study area would have to double and maintain the same speed for a 3 dBA change to occur. The cumulative projects would likely result in a doubling of vehicle traffic at locations within the cumulative study area. As an example, Vernola Marketplace Apartments alone is estimated to produce an increase of 2,640 daily vehicle trips, while the current average daily trips for three nearby surveyed locations ranged from 6,181 to 11,312 (City of Jurupa Valley, 2015a; SCE, 2017). With 19 cumulative projects within 0.5 mile of the Revised Project, it is likely that a doubling of traffic would occur at intersections within the cumulative analysis study area. The increase in traffic would cause a permanent noticeable increase in ambient noise levels and would therefore be a significant cumulative impact.

Airport Land Use Plan

The Revised Project includes modifications to Distribution Line Relocations #7 and #8 within the Riverside Municipal Airport Influence Area. There is one cumulative project (#26 Riverside Agricultural Park) located within the same Airport Influence Area. The Revised Project would not expose sensitive receptors to airport noise and would not create a cumulative impact from exposure to airport noise.

Revised Project Contribution to Potential Cumulative Impacts and Mitigation

Temporary Noise Increase

As discussed in Section 4.10: Noise, construction of the Revised Project would cause a significant and unavoidable temporary increase in ambient noise levels. Revised Project construction is scheduled to occur for 26 months. Receptors along the underground alignment may experience construction noise for three consecutive weeks. Where construction activities for the Revised Project and cumulative projects overlap temporally, the significant temporary increase in ambient noise levels from the Revised Project would exacerbate the existing significant increase caused by the cumulative projects, exposing receptors to potentially months

of construction noise. Therefore, the Revised Project's incremental contribution to this significant cumulative noise impact would be considerable.

EPE NOI-01 (Noise Complaint Reporting), EPE NOI-02 (Noise Complaint Investigation), EPE NOI-03 (Construction Practices), EPE NOI-04 (Noise Reduction Practices), and MM NOI-04 (Construction Notification) would reduce temporary construction noise impacts (refer to Section 4.10: Noise). However, the incremental contribution of the Revised Project to cumulative temporary noise impacts would remain cumulatively considerable even with implementation of these mitigation measures.

Long-Term/Permanent Changes in Ambient Noise Levels
The Revised Project underground transmission line would not be a source of long-term noise. The overhead transmission line on Wineville Avenue would not produce corona noise audible at nearby receptors. Periodic inspections and maintenance of the Revised Project would occur throughout the life of the project. Maintenance and inspections would occur infrequently and would not noticeably increase ambient noise levels in the Revised Project vicinity. The Revised Project would have a less than considerable contribution to a cumulative impact from the permanent increase in noise levels.

5.3.11 Population and Housing

Geographic Extent
The geographic extent for the analysis of cumulative impacts associated with population and housing is the area within 1 mile of all Revised Project components. This geographic scope is appropriate because it is large enough to reflect regional impacts to population and housing yet focused enough to represent the Revised Project's actual potential to combine with the impacts of other cumulative projects.

Impacts Avoided by the Revised Project
The Revised Project would not displace substantial numbers of existing housing or people and would not divide an existing community. The Revised Project would not contribute to cumulative impacts on these resources.

Potential Cumulative Impacts
The cumulative analysis area contains the following residential projects:

- Frontier Communities/ Barrington Place (#8)
- William Lyons Homes/ Turnleaf (#9)
- Pulte Homes/ Serrano Ranch (#10)
- Sky Country and Vernola Trust North Parcels (#15)
- Lennar Homes/ Harvest Villages Phase 3 (#17)
- Wineville Marketplace (#20)
- William Lyons Homes/ NEXUS (#21)
- Vernola Marketplace Apartments (#22)
- Lennar Homes/ Riverbend (#23)
- DR Horton/ Cooper Sky (#24)
- 99 Cents Only Store (#25)
- Riverside Agricultural Park (#26)

When completed, these projects would introduce a substantial amount of new housing to the cumulative analysis area, which would lead to substantial population growth. A significant cumulative impact on population growth therefore already exists in the Revised Project area.

Revised Project Contribution to Potential Cumulative Impacts and Mitigation

The Revised Project is intended to meet the state environmental and energy policy goals; comply with applicable North American Electric Reliability Corporation, Western Electricity Coordinating Council, and CAISO transmission planning criteria for the surrounding area; and to reliably meet the City of Riverside's forecast load growth. The Revised Project is designed to increase reliability and accommodate existing electrical load growth and would not extend electrical service to any new areas. Construction of the Revised Project would primarily employ workers within Riverside County because the Revised Project would be located within an urban area with easy access to a workforce in nearby communities. A small number of workers may temporarily relocate from outside of the local area to reside in transient accommodations, such as hotels, while working on the Revised Project. Workers are expected to leave the project area after construction is completed. The Revised Project's contribution to the significant cumulative impact on population growth would be less than considerable.

5.3.12 Public Services and Utilities

Geographic Extent

Public Services

The geographic scope for the analysis of cumulative impacts to public services includes the Cities of Jurupa Valley and Riverside, which are traversed by the project. The effects on public services from construction and operation of the Revised Project would diminish considerably with increased distance from the Revised Project. Therefore, cumulative impacts on public services are analyzed within 1 mile of the Revised Project.

Utilities

The geographic extent for the cumulative analysis of impacts on landfill capacity is the County of Riverside because all the landfills that would be impacted by the Revised Project are located within and serve the county.

The geographic extent for the analysis of cumulative impacts associated with damage to gas, water, or sewer pipelines or communication lines, water supplies, and wastewater treatment capacity is the area within 1 mile of the Revised Project. This extent is appropriate because the likelihood of a substantial service disruption due to cumulative damages to utility lines diminishes as a cumulative project increases in distance from the Revised Project and the projects within 1 mile of the Revised Project would be expected to use the same water purveyors and wastewater treatment facilities. Construction of a cumulative project greater than 1 mile from the Revised Project would have a minimal likelihood of combining impacts on utility lines with the Revised Project to result in a substantial service disruption.

Impacts Avoided by the Revised Project

The Revised Project would not have an impact on schools, parks, or other public facilities and would not contribute to cumulative impacts on these resources. Additionally, the Revised Project would have no impact from exceedance of wastewater treatment requirements or wastewater treatment capacity, construction of new water or wastewater treatment facilities, construction of stormwater drainage facilities, or conflicts with statutes and regulations for handling of solid waste. The Revised Project would have no impact from exceedance of available water supplies. The Revised Project would not contribute to cumulative impacts on these resources.

Potential Cumulative Impacts

Public Services

Construction of the following residential and commercial development projects in the cumulative analysis area would substantially increase the population and number of businesses in the region:

- Frontier Communities/ Barrington Place (#8)
- William Lyons Homes/ Turnleaf (#9)
- Pulte Homes/ Serrano Ranch (#10)
- Sky Country and Vernola Trust North Parcels (#15)
- Lennar Homes/ Harvest Villages Phase 3 (#17)
- Wineville Marketplace (#20)
- William Lyons Homes/ NEXUS (#21)
- Vernola Marketplace Apartments (#22)
- Lennar Homes/ Riverbend (#23)
- DR Horton/ Cooper Sky (#24)
- 99 Cents Only Store (#25)
- Riverside Agricultural Park (#26)

Completion of these projects would create substantial additional demand for fire and police protection services to accommodate the new residents and businesses. This additional demand could contribute to a need for new or physically altered governmental facilities to accommodate population growth. Construction of these cumulative projects would create a significant cumulative impact on fire and police protection services.

Utilities

Landfill Capacity

The sanitary landfills, Badlands and Lamb Canyon, that serve the Revised Project have approximately 15.7 and 19.2 million cubic yards, respectively, of remaining capacity. The unclassified landfill (El Sobrante) that serves the Revised Project has approximately 145.5 million tons of remaining capacity (CalRecycle, 2017). Due to the ample remaining capacity of these landfills, there is sufficient landfill capacity to serve the cumulative projects. The cumulative impact on landfill capacity would be less than significant.

Damage to Utility Lines
Construction of the following cumulative projects has the potential to damage, disrupt, or rupture water, gas, or sewer pipelines or communication lines during ground disturbing activities:

- Frontier Communities/ Barrington Place (#8)
- Lesso Mall Development (#13)
- Sky Country and Vernola Trust North Parcels (#15)
- Vernola Marketplace Apartments (#22)
- Riverside Agricultural Park (#26)

Damage to an existing underground utility by one or more cumulative projects that resulted in a substantial disruption in service would be a significant impact. All the cumulative projects are required to notify the Underground Service Alert at least two working days prior to any excavation activities according to the requirements of CGC §§ 4216-4216.9, "Protection of Underground Infrastructure." Local utilities would then have 2 days to mark the proposed excavation area to identify the locations of their underground facilities. The cumulative risk of damage to an underground utility line would be less than significant due to the requirements of CGC §§ 4216-4216.9.

Revised Project Contribution to Potential Cumulative Impacts and Mitigation
The Revised Project is located in an area of low wildland fire hazard. The Revised Project would require a small degree of local fire and police protection services during the 26 months of construction to ensure the safety and security of workers and equipment. Negligible fire and police protection services would be required during operation and maintenance of the Revised Project. Due to the temporary and minimal amount of fire and police service required, the Revised Project's contribution to the significant cumulative impact on fire and police protection services would be less than considerable.

5.3.13 Recreation

Geographic Extent
The geographic extent for the analysis of cumulative impacts associated with recreation includes areas within 1 mile of the Revised Project. This area includes the recreational facilities that would be traversed by or adjacent to the Revised Project. A geographic distance of 1 mile is appropriate because neighbors are expected to use recreational facilities in proximity to their community. A 1-mile area surrounding the Revised Project includes the recreational facilities that are most likely to be used by the same community that uses the recreational facilities affected by the Revised Project.

Impacts Avoided by the Revised Project
The Revised Project would not create recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. The Revised Project would not contribute to cumulative impacts from the creation of recreational facilities.

Potential Cumulative Impacts

The cumulative projects include residential development projects. When completed, these projects would substantially increase the number of people residing in the cumulative analysis study area. This population increase would result in increased use and deterioration of recreational resources in the area. The cumulative impact from deterioration of a recreational facility would be potentially significant.

The cumulative projects are not located within recreational areas, and no cumulative impact from interference with recreational activities would occur.

Revised Project Contribution to Potential Cumulative Impacts and Mitigation

The Revised Project would not result in a population increase in the cumulative analysis study area and would not increase the utilization of recreational resources by existing residents. The Revised Project would not have a cumulatively considerable impact on the deterioration of a recreational facility.

The Revised Project would require temporary closure of trail segments and portions of the Goose Creek Golf Club during construction; however, the cumulative projects would not permanently interfere with the use of any recreational facilities, and there is no existing cumulative impact on recreation. The Revised Project would not contribute to a cumulative impact on interfering with the use of recreational facilities.

5.3.14 Transportation and Traffic

Geographic Extent

The geographic extent for the transportation and traffic cumulative analysis includes the local and regional roadways and highways that would be crossed by the Revised Project or utilized for the transport of Revised Project materials. The scope of the analysis specifically includes all projects within 1 mile of the Revised Project because these projects are expected to use the same roads for access during construction. Projects beyond 1 mile are separated from the project area by the I-15 freeway or would use other major roads to access I-15. The Revised Project's transportation and traffic impacts (such as increased construction traffic volume and lane closures) would diminish with increased distance from Revised Project area. Accordingly, greater weight is placed on cumulative projects that are located closer to the Revised Project.

The geographic extent for the cumulative analysis of air traffic patterns is the area within 1 mile of the Airport Influence Area for the Riverside Municipal Airport. This extent accounts for all projects that would be reasonably likely to contribute to air traffic in the area by utilizing Riverside Municipal Airport for aircraft stationing and refueling.

Impacts Avoided by the Revised Project

The Revised Project would not avoid any transportation and traffic impacts.

Potential Cumulative Impacts

The Revised Project and cumulative projects listed in Table 5.2-1 would add vehicle trips to roadways during either construction of the cumulative projects or due to the additional residential and commercial vehicle trips associated with the cumulative projects. The Revised Project would contribute to the cumulative scenario for traffic.

Conflict with Traffic Standards

The cumulative impact from buildout of cumulative projects was considered in the traffic impact analysis (refer to Section 4.13: Transportation and Traffic, Impact Traffic-a). Existing traffic with ambient growth[1] (i.e., baseline), which encompasses growth due to buildout of cumulative projects, would not result in the deterioration of intersection or roadway segment operations below LOS D as shown in Table 4.13-10 and Table 4.13-11 in Section 4.13: Transportation and Traffic.

The cumulative projects involve construction of the following large residential and commercial development projects that would introduce a substantial number of construction vehicles on roadways in the Revised Project area:

- Frontier Communities/ Barrington Place (#8)
- William Lyons Homes/ Turnleaf (#9)
- Lesso Mall Development (#13)
- Sky Country and Vernola Trust North Parcels (#15)
- Leal Master Plan Special Project (#18)
- Express Car Wash (#19)
- Wineville Marketplace (#20)
- Vernola Marketplace Apartments (#22)
- Riverside Agricultural Park (#26)

The substantial temporary increase in vehicles on area roadways during construction of cumulative projects could degrade the LOS at intersections and along roadway segments to below traffic standards in the Revised Project area. The cumulative projects would add traffic that would decrease the flow on I-15 segments that are not currently meeting LOS standards, making traffic worse in the area. This additional traffic may cause additional segments to operate below the LOS standards. The cumulative impact from conflicts with traffic standards would be potentially significant.

Air Traffic Patterns

Construction of cumulative projects could require the use of Riverside Municipal Airport for aircraft fueling and storage. Air traffic at Riverside Municipal Airport could increase or change the location of air traffic flow. It is reasonable to assume any existing or future projects in the cumulative impact area requiring the use of Riverside Municipal Airport would consult with the Federal Aviation Administration to ensure safety and minimize air traffic impacts. The existing cumulative impact on air traffic patterns is less than significant.

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[1] Two percent annual growth (KOA Corporation, 2017)

Traffic Hazards
Construction of the cumulative projects would introduce large haul and delivery trucks to local roadways, potentially resulting in roadway obstructions while entering and exiting work sites. An increase in large trucks could increase traffic hazards due to large blind spots, turning radii, and greater area trucks occupy in roadways. Heavy trucks have the potential to damage local roadways along construction routes. Several cumulative projects (Frontier Communities/ Barrington Place [#8], William Lyons Homes/Turnleaf [#9], Lesso Mall Development [#13], and Sky Country and Vernola Trust North Parcels [#15]) are located along the Revised Project route and could obstruct or damage the same roadways as the Revised Project during construction of sidewalks, curbs, gutters, and entrances to the cumulative projects or open trenching in roadways for utility service connections (e.g., sewer, water, gas, power). Roadway obstructions and roadway damage from cumulative projects could create unsafe conditions for drivers. The cumulative impact on traffic hazards would be significant.

Emergency Access
It is unlikely that cumulative projects constructed at the same time as the Revised Project would cause lane and road closures. The cumulative projects that would be constructed concurrently with the Revised Project include residential, commercial, and recreational projects that do not require work within existing roadways. The cumulative impact on emergency access on local roadways would be less than significant.

Alternative Transit
Lane and road closures are assumed to not be required during construction of the cumulative projects that have overlapping schedules with the Revised Project. Sidewalk and equestrian trails could be closed during construction of the cumulative projects to ensure pedestrian safety in active construction zones. Bicycle lanes, bus stops, and bus routes would not be cumulatively impacted. Each cumulative project may have limited impacts on some pedestrian and equestrian facilities. Most of these impacts would be localized (i.e., around the specific development projects) and/or of limited duration due to the nature of the construction projects (e.g., linear projects). The cumulative impact on alternative transit would be less than significant.

Revised Project Contribution to Potential Cumulative Impacts and Mitigation

Conflict with Traffic Standards
Impact Traffic-a (refer to Section 4.13: Transportation and Traffic) analyzed the Revised Project's contribution to impacts on roadway and intersection operations in combination with planned growth. Impacts on intersection operations would be less than significant with implementation of EPEs and mitigation measures, but impacts on roadway segment operations would remain significant and unavoidable.

Construction workers and trucks accessing the Revised Project work sites would use the same segments of I-15 and local roadways as the construction vehicles accessing cumulative project sites. Road and lane closures of local roadways during construction of the Revised Project would result in degradation of intersection and roadway operations to below traffic standards.

The additional vehicle trips generated by the Revised Project and closures would contribute considerably to a significant cumulative impact on roadway and intersection operations.

EPE TRANS-03 (Prepare Traffic Control Plans), MM TRANS-02 (Avoid Peak-Period Construction), MM TRANS-02A (Avoid Peak-Period Closures and Obstructions on All Roadways), and MM TRANS-06 (Prepare Traffic Control Plans) would reduce the impact from construction traffic and closures on intersection operations (refer to Section 4.13: Transportation and Traffic for the full text of EPEs and mitigation measures). The operation of the Limonite Avenue segment west of Veterans Memorial would not meet traffic standards even with implementation of mitigation. Intersection operations during the off-peak could experience significant delays during road and lane closures along Pats Ranch Road. The Revised Project's contribution to roadway segment operations would remain cumulatively considerable with mitigation.

Traffic Hazards

Large trucks delivering equipment and materials to and from Revised Project work sites could increase traffic hazards particularly on roadways not designated for use by commercial trucks. Road and lane closures as well as storage of equipment and materials in the roadway would increase traffic hazards for drivers. Heavy trucks and equipment have the potential to damage local roadways along construction routes and at work sites. Inadequate repairs could also increase the traffic hazard. Construction of the Revised Project would contribute considerably to a significant cumulative impact on traffic hazards.

EPE TRANS-03 (Prepare Traffic Control Plans), EPE TRANS-04, MM TRANS-02 (Avoid Peak-Period Construction), MM TRANS-02A (Avoid Peak-Period Closures and Obstructions on All Roadways), MM TRANS-06 (Prepare Traffic Control Plans), and MM TRANS-07 (Post-Construction Road Repair) would reduce the impact from construction traffic and closures on intersection operations. The Revised Project's contribution to traffic hazards would be less than considerable with mitigation.

5.3.15 Energy Use

Geographic Extent

The geographic extent for the cumulative analysis of impacts on energy resource demand includes the electric grid that the Revised Project would contribute to and areas from which energy resources would be provided for construction and maintenance activities. Construction and maintenance of the Revised Project would require diesel and gasoline fuels for the transportation and operation of vehicles and equipment. Thus, the geographic extent for this cumulative analysis would include the SCE and RPU electric grids within Riverside County and publicly available diesel and gasoline fuel sources in the vicinity of the Revised Project.

Impacts Avoided by the Revised Project

The Revised Project would not create a new source of energy demand in Riverside and would not require any power or put demand on the electrical system. The Revised Project would be

located in an urban area with access to a local workforce, and the Revised Project would not create any permanent jobs. Construction and operation of the Revised Project would not have an impact on creating a new source of energy demand or increasing overall distances between jobs and housing and would not contribute to cumulative impacts on these resources.

Potential Cumulative Impacts

Cumulative development in Riverside County would add new residential and commercial uses. These new developments would bring new workers into the area, which would result in additional use of energy to power vehicles for the people who would move into the residential communities and to power homes and businesses. The cumulative projects would be more energy efficient than older developments and would need to comply with CEC requirements for building energy efficient standards (PRC §§ 25402 and 25402.1, Title 24, Part 6). The new buildings would not result in a cumulative wasteful or inefficient use of energy due to compliance with state standards for energy efficiency.

More than 53 percent of workers in Riverside County spend more than 30 minutes commuting to work each way (Southern California Association of Governments, 2017). Limited public transportation infrastructure exists in the cumulative project area, and no large proposals for major improvement of the public transportation network have been introduced to reduce reliance on private vehicles. The cumulative projects could result in a significant cumulative impact from wasteful and efficient use of energy associated with vehicle operation.

Revised Project Contribution to Potential Cumulative Impact and Mitigation

Project construction activities would require energy consumption while operation and maintenance of the project would require a negligible amount of energy. Fuel would be needed for construction vehicles, construction equipment, and construction operations. The consumption of fuel for construction vehicles and equipment would have a potentially cumulatively considerable contribution to the significant impact on wasteful or inefficient energy use. MM AQ-02 defines requirements for worker carpooling, routing of construction trucks and traffic away from congested streets, and the use of EPA Tier-3 and Tier-4 construction equipment. Compliance with MM AQ-02 would minimize potential inefficient use of energy from construction vehicles and equipment. The Revised Project's contribution to the significant cumulative impact would be less than considerable with mitigation.

5.4 CUMULATIVE IMPACT ANALYSIS FOR ALTERNATIVES

5.4.1 Introduction

The following analysis describes the potential for the alternatives, in combination with other projects, to result in cumulatively significant environmental impacts. In each instance, the evaluation identifies whether the cumulative impact would be significant, and whether the alternative's contribution would be considerable.

The list of cumulative projects and plans for alternatives was identified in the same manner as for the Revised Project. Projects and plans were reviewed to identify whether the alternatives could contribute to cumulatively significant impacts when evaluated in combination with these other projects.

To determine if an alternative's incremental contribution to a significant cumulative impact would be cumulatively considerable, the following questions were considered in the analysis:

- Would the overall impact of the alternative be the same, greater, or less than the impact of the Revised Project?
- Considering the geographic scope and context of the alternative, would the alternative's incremental contribution to a cumulative impact substantially differ from the incremental contribution of the Revised Project?
- Is there anything else about the alternative that would reduce or increase the type, intensity, or duration of its incremental contribution to a cumulative impact?

The cumulative projects for the alternatives are provided in Table 5.4-1 and shown on Figure 5.4-1. Cumulative projects are numbered in the same manner as for the Revised Project cumulative analysis (refer to Section 5.3: Cumulative Impact Analysis). The table provides information on the status of each cumulative project and defines which alternative each cumulative project would apply to. In some cases, the cumulative projects apply to more than one alternative (e.g., Alternatives 1 and 2) or to the Revised Project and an alternative due to the proximity of the alternatives to each other and/or the Revised Project. The alternatives are in the same cities as the Revised Project; therefore, the same plans that were used to evaluate cumulative impacts for the Revised Project were used to evaluate cumulative impacts for the alternatives.

None of the alternatives would result in impacts to land use and planning, mineral resources, or population and housing. Therefore, none of the alternatives would contribute to cumulative impacts on these resources; these resource topics are not discussed in the following cumulative analysis.

Table 5.4-1 Cumulative Scenario Projects Near Alternative Alignments

No.	Project Name	Project Type	Project Components	Status	Alternative Affected
3	I-15 High Occupancy Toll Lane Project	Transportation	Construction of one to two toll express lanes in each direction between the I-15/Cajalco Road interchange and the I-15/State Route 60 interchange to improve traffic flow and reduce congestion. Construction is anticipated to be within existing Caltrans right-of-way with improvements occurring within the existing I-I5 median.	Construction is expected to begin in 2018 and toll express lanes are anticipated to open in mid-2020.	Alternative 1 Alternative 2 Alternative 3 Alternative 4
6	LBA Realty Industrial Building Major Development Review	Commercial	Construction for a 446,173 square-foot industrial building on approximately 24 acres and overflow parking.	Revised construction plans were approved December 2016. Project under construction. Construction completion anticipated in December 2018.	Alternative 1 Alternative 2 Alternative 4
7	Circle City Substation and Mira Loma – Jefferson 66 kV Subtransmission Line	Public Infrastructure	Construction of a new 66/12-kV substation (Circle City Substation); four new 66-kV subtransmission source lines; and a new 66-kV subtransmission line, which would be a combination of both overhead and underground construction.	Environmental review by the CPUC currently under way. Southern California Edison proposed construction completion by 2021.	Alternative 4

No.	Project Name	Project Type	Project Components	Status	Alternative Affected
8	Frontier Communities/ Barrington Place (formerly Stratham/ Harmony Trails)	Residential	176 single-family subdivision	Entitlement has been approved. Construction schedule is not known.	Alternative 1 Alternative 2 Alternative 4
9	William Lyons Homes/ Turnleaf	Residential	111 single-family subdivision with open space, 2.64-acre public park, street improvements, and a school	All improvements and infrastructure are complete; Construction of Phases 7 and 8 in progress. Construction completion anticipated in May 2020.	Alternative 1 Alternative 2 Alternative 4
10	Pulte Homes/ Serrano Ranch	Residential	Single- and two-story homes	Construction is 75 percent complete and anticipated to be completed between April and June 2019.	Alternative 1 Alternative 2 Alternative 4
12	Goodman Commerce Center (formerly Lewis Eastvale Commerce Center)	Commercial	Construction of a 190-acre plot for mix-usage of warehousing, light industrial, office, and retail.	Two building permits have been issued. Construction is expected to be complete by mid- to late-2018.	Alternative 1 Alternative 2 Alternative 4
13	Lesso Mall Development (formerly Thoroughbred Farms Business Park)	Commercial	Commercial mixed-use project to include malls, commercial/retail, office/business park, and hotels.	Property to be built out in three phases with first phase construction estimated to start in late 2018 or early 2019.	Alternative 1 Alternative 2 Alternative 3 Alternative 4

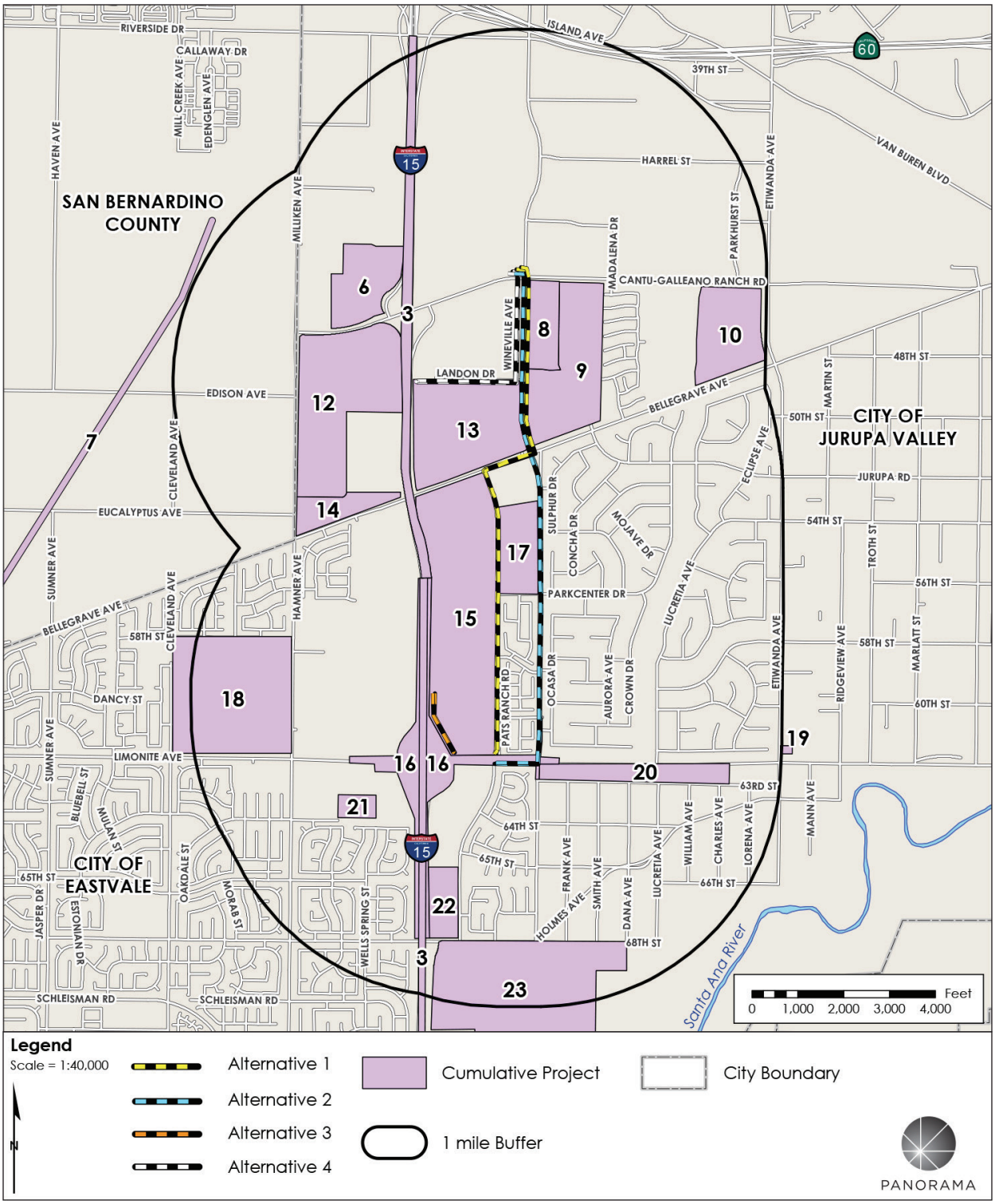
No.	Project Name	Project Type	Project Components	Status	Alternative Affected
14	Goodman Commerce Center Business Park (NEC of Bellegrave & Hamner)	Commercial	Development of the Business Park to include 8 buildings and approximately 191,356 square feet to accommodate professional offices, light industrial, and light assembly uses.	Construction has been completed.	Alternative 1 Alternative 2 Alternative 3 Alternative 4
15	Sky Country and Vernola Trust North Parcels	Residential, Commercial, and Industrial	Development of a mixed-use residential, commercial, and industrial development within approximately 199-acres of the I-15 Corridor Specific Plan.	Final development planning would take 12 to 18 months following CPUC decision on RTRP. Estimated construction in mid-2020 through 2023.	Alternative 1 Alternative 2 Alternative 3 Alternative 4
16	I-15/ Limonite Avenue Interchange Improvements Project	Transportation	Construction to widen Limonite Avenue to three lanes in each direction through the interchange area; widen the existing I-15 northbound and southbound on-and off-ramps; and replace the existing Limonite Avenue Overcrossing structure.	Construction is anticipated to start in mid-2018 and be completed by the end of 2019.	Alternative 1 Alternative 2 Alternative 3 Alternative 4
17	Lennar Homes/ Harvest Villages Phase 3	Residential	Residential neighborhood (part of the I-15 Corridor Specific Plan).	The project is mostly completed. Construction and occupancy of remaining homes anticipated by February 2019.	Alternative 1 Alternative 2 Alternative 3 Alternative 4

No.	Project Name	Project Type	Project Components	Status	Alternative Affected
18	Leal Master Plan Special Project	Commercial	Development of a 161-acre property into a mix of commercial, office, hotel, civic, residential, recreation, and entertainment uses on land that is currently designated in the General Plan for residential and business park uses and zoned for agricultural uses.	City has Planning Commission recommended approval to City Council on 9/16/2016. Projected construction start and completion dates are unknown; the project representative has requested that the City postpone action on the project.	Alternative 1 Alternative 2 Alternative 3
19	Express Car Wash	Commercial	Drive-thru carwash with 17 vacuum stalls.	Project has been approved but inactive and unconstructed as of November 2017. Projected construction start and completion dates are unknown.	Alternative 2
20	Wineville Marketplace	Residential	130 single-family residential homes, two retail centers, two linear parks, horse arena, and horse/pedestrian trails on approximately 34 acres	Entitlements approved January 2017. Construction is projected to start in 2019 or 2020 and be completed by 2022.	Alternative 1 Alternative 2 Alternative 3
21	William Lyons Homes/NEXUS	Residential	220 residential units on a 10-acre site.	Final phase of construction starting in January 2018 and anticipated completion in August 2018.	Alternative 1 Alternative 2 Alternative 3

No.	Project Name	Project Type	Project Components	Status	Alternative Affected
22	Vernola Marketplace Apartments	Residential	397-unit multi-family residential apartment complex on 17.4 acres.	Final development planning would take 9 to 12 months following CPUC decision on RTRP. Estimated construction in late 2019 through 2021.	Alternative 1 Alternative 2 Alternative 3
23	Lennar Homes/ Riverbend	Residential	464 single-family homes on 211 acres	Currently under construction. Full occupancy and project close out are anticipated in the third quarter of 2019.	Alternative 1 Alternative 2 Alternative 3

Sources: (City of Eastvale, 2017b; City of Eastvale, 2017a; City of Jurupa Valley, 2015b; City of Jurupa Valley, 2017a; City of Jurupa Valley, 2017b; City of Jurupa Valley, 2017c; Marcinek, 2017; Riverside County Transportation Commission, 2017; Riverside County Transportation Department, 2017; City of Eastvale, 2017c) (Lear, 2017; TRC, 2016; Urban Futures, Inc., 2015; Lennar Homes of California, Inc., 2015; McPhaul, 2017; Loriso, 2017; Smith, 2017; Tasnif-Abbasi, 2017; Tam, 2017; Martinez, 2017) (Russo, 2017; Lim, 2017; City of Eastvale, 2017d; City of Eastvale, 2017e; Norton, 2017; Parthenon Development LLC & JA Russo Enterprises Inc., n.d.; Norris, 2017; Du, 2017)

Figure 5.4-1 Cumulative Projects near Project Alternatives



Source: (ESRI, 2017; Southern California Edison, 2017; Google, Inc., 2017)

5.4.2 Comparative Analysis of Cumulative Impacts

Table 5.4-2 presents the results of the cumulative impact analysis for project alternatives. The table analyzes the alternative contributions to the significant cumulative impacts identified for the Revised Project.

Table 5.4-2 Cumulative Analysis of Alternatives

Impact Area	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Aesthetics	Decreased contribution due to replacement of a section of the overhead transmission line with an underground transmission line	Decreased contribution due to replacement of a section of the overhead transmission line with an underground transmission line	Decreased contribution; impacts would be similar to the Revised Project as riser poles would be visible in an area with high viewer sensitivity, but the overall visual impact would be reduced	Decreased contribution due to replacement of a section of the overhead transmission line with an underground transmission line
Contribution to Cumulative Impact	*Less than considerable*	*Less than considerable*	*Less than considerable*	*Less than considerable*
Agriculture and Forestry Resources	No impact	No impact	Increased contribution to impacts due to increased underground construction and loss of Farmland; however, conversion would have occurred as a result of cumulative project #15	No impact.
Contribution to Cumulative Impact	*No contribution*	*No contribution*	*Less than considerable*	*No contribution*
Air Quality and Greenhouse Gas Emissions	Increased contribution to air quality impacts due to greater criteria pollutant emissions from underground transmission line construction near sensitive receptors	Increased contribution to air quality impacts due to greater criteria pollutant emissions from underground transmission line construction near sensitive receptors	No change.	Increased contribution to air quality impacts due to greater criteria pollutant emissions from underground transmission line construction near sensitive receptors

Impact Area	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Contribution to Cumulative Impact	*Considerable*	*Considerable*	*Less than considerable*	*Considerable*
Biological Resources	No Impact	No Impact	No Impact	No Impact
Contribution to Cumulative Impact	*No contribution*	*No contribution*	*No contribution*	*No contribution*
Cultural, Tribal Cultural, and Paleontological Resources	Increased contribution to impacts due to increased underground construction and potential for inadvertent discoveries	Increased contribution to impacts due to increased underground construction and potential for inadvertent discoveries	Increased contribution to impacts due to increased underground construction and potential for inadvertent discoveries	Increased contribution to impacts due to increased underground construction and potential for inadvertent discoveries
Contribution to Cumulative Impact	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*
Geology and Soils	Decreased impact due to construction in less areas containing top soil and fewer overhead structures.	Decreased impact due to construction in less areas containing top soil and fewer overhead structures.	Increased contribution to potential erosion due to increased soil disturbance; however, impact reduced through compliance with MS4 permit	Decreased impact due to construction in less areas containing top soil and fewer overhead structures.
Contribution to Cumulative Impact	*Less than considerable*	*Less than considerable*	*Less than considerable*	*Less than considerable*
Hazards and Hazardous Materials	No change	No change	No change	No change
Contribution to Cumulative Impact	*Less than considerable*	*Less than considerable*	*Less than considerable*	*Less than considerable*
Hydrology and Water Quality	Decreased contribution due to construction in roadways.	Decreased contribution due to construction in roadways.	Increased contribution due to greater ground disturbance; however, soil disturbance would be controlled through compliance with MS4 permit	Decreased contribution due to construction in roadways.

Impact Area	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Contribution to Cumulative Impact	*Less than considerable*	*Less than considerable*	*Less than considerable*	*Less than considerable*
Noise	Increased contribution to noise impacts due to additional underground transmission line construction near sensitive receptors	Increased contribution to noise impacts due to additional underground transmission line construction near sensitive receptors	No impact	Increased contribution to noise impacts due to additional underground transmission line construction near sensitive receptors; however, impact reduced through the use of sound barriers
Contribution to Cumulative Impact	*Considerable*	*Considerable*	*No contribution*	*Less than considerable*
Public Services, Utilities, and Service Systems	No change	No change	No change	No change
Contribution to Cumulative Impact	*Less than considerable*	*Less than considerable*	*Less than considerable*	*Less than considerable*
Recreation	Increased contribution due to access restrictions on trail; however, access restrictions would be temporary	Increased contribution due to access restrictions on trail; however, access restrictions would be temporary	No impact	Increased contribution due to access restrictions on trail; however, access restrictions would be temporary
Contribution to Cumulative Impact	*Less than considerable*	*Less than considerable*	*No contribution*	*Less than considerable*
Transportation and Traffic	Increased contribution to impact on traffic from road closures needed for underground transmission line construction	Increased contribution to impact on traffic from road closures needed for underground transmission line construction	No change	Increased contribution to impact on traffic from road closures needed for underground transmission line construction
Contribution to Cumulative Impact	*Considerable*	*Considerable*	*Less than considerable*	*Considerable*

5.5 REFERENCES

California Department of Conservation. (2014). *California Farmland Conversion Report 2008-2010.*

California Department of Conservation. (2015). *California Farmland Conversion Report 2015.*

CalRecycle. (2017). *Solid Waste Information System (SWIS) Facility/Site Search*. Retrieved from Cal Recycle: http://www.calrecycle.ca.gov/SWFacilities/Directory/Search.aspx

CARB. (2005). Air Quality and Land Use Handbook: A Community Health Perspective.

CARB. (2016, January 5). Chronology of State Carbon Monoxide Designations.

Cartledge, J. (2017, December 14). City of Riverside Planner. (C. Gilleran, Interviewer)

City of Eastvale. (2017a, January 18). Eastvale Planning: Major Projects Summary. Retrieved March 1, 2017, from http://www.eastvaleca.gov/city-hall/economic-development/project-site-maps

City of Eastvale. (2017b, January 25). City Council Staff Report: Public Works Department Update. Retrieved from http://www.eastvaleca.gov/city-hall/public-works

City of Eastvale. (2017c). Eastvale Planning: Major Projects Summary May 8, 2017. Retrieved May 26, 2017, from http://www.eastvaleca.gov/home/showdocument?id=6163

City of Eastvale. (2017d, July 13). Eastvale Planning: Major Projects Summary. Retrieved November 8, 2017, from http://www.eastvaleca.gov/home/showdocument?id=6403

City of Eastvale. (2017e, September 19). Eastvale Planning: Major Projects Summary. Retrieved November 13, 2017, from http://www.eastvaleca.gov/home/showdocument?id=6551

City of Jurupa Valley. (2015a). *Vernola Marketplace Apartments Master Application 1485.* Initial Study/Mitigated Negative Declaration.

City of Jurupa Valley. (2015b, August 20). Southern California Edison's Application for a Certificate of Public Convenience and Necessity for the Riverside Transmission & Reliability Project: Projects within Edison's 230 kV Transmission Line Path.

City of Jurupa Valley. (2017). *Draft 2017 General Plan.* City of Jurupa Valley: Planning Department.

City of Jurupa Valley. (2017a, March 16). Approved Projects - last update: 03/16/17.

City of Jurupa Valley. (2017b, March 14). FY2016-2017 Capital Improvement Project Status - March 14, 2017.

City of Jurupa Valley. (2017c, March 16). Pending Projects - last update 03/16/17.

City of Riverside. (2007). *Riverside General Plan 2025.* City of Riverside: Community Development Department.

County of Riverside. (2015). *County of Riverside General Plan.*

Du, D. (2017, November 8). Project Manager of LESSO Mall. (J. Thomas, Interviewer)

DWR. (2006, January 20). Upper Santa Ana Valley Groundwater Basin, Chino Subbasin. *California's Groundwater Bulletin 118*, p. 4.

ESRI. (2017). raster, vector, and on-line GIS Data resources.

ESRI. (2017). raster, vector, and on-line GIS Data resources.

Google, Inc. (2017). Google Earth Pro.

IPCC. (2013). Climate Change 2013 The Physical Science Basis .

JCSD. (2018, January 9). *About Your Water*. Retrieved from http://www.jcsd.us/customers/about-your-water

Jurupa Community Services District. (2018, January 3). *About Your Water*. Retrieved from Jurupa Community Services District: http://www.jcsd.us/customers/about-your-water

KOA Corporation. (2017). Traffic Impact Study for Riverside Transmission Reliability Project - Underground .

Lear, S. (2017, May 16). Department of Toxic Substances Control Public Participation Specialist. (N. Takahashi, Interviewer)

Lennar Homes of California, Inc. (2015, November 24). Re: Response to Information Request for the Southern California Edison's Application for a Certificate of Public Convenience and Necessity for the Riverside Transmission Reliability Project, CPUC Application No. A.15-04-013 dated September 23, 2015.

Lim, M. (2017, November 8). City of Eastvale. (K. Dewhurst, Interviewer)

Loriso, S. (2017, June 15). Deputy City Engineer. (N. Takahashi, Interviewer)

Marcinek, J. (2017, May 10). Transportation Project Manager. (N. Takahashi, Interviewer)

Martinez, P. (2017, November 9). Havadjia Holdings, Inc. (N. Takahashi, Interviewer)

McPhaul, P. (2017, May 22). Public Participation Specialist. (N. Takahashi, Interviewer)

Norris, E. (2017, November 8). City of Eastvale. (K. Dewhurst, Interviewer)

Norton, K. (2017, November 14). Environmental Planner, LSA Associates, Inc. (N. Takahashi, Interviewer)

Parthenon Development LLC & JA Russo Enterprises Inc. (n.d.). *Wineville MarketPlace*. Retrieved November 14, 2017, from http://www.e-equities.com/Houses/WinevilleMarketPlace/WinevilleMarketPlace.html

Riverside County Integrated Project. (2003). *Western Riverside Final Multiple Species Habitat Conservation Plan.* Dudek.

Riverside County Transportation Commission. (2017). *Project Facts*. Retrieved May 10, 2017, from I-15 Express Lanes: http://i15project.info/index.php

Riverside County Transportation Department. (2017). *Limonite/I-15 Interchange*. Retrieved May 10, 2017, from Featured Projects: http://rcprojects.org/limoniteinterchange/

Russo, J. (2017, November 9). Owner/Developer of Winville Market Place. (N. Takahashi, Interviewer)

SCAQMD. (2016). *Historical Data by Year*. Retrieved January 20, 2016, from http://www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year

SCAQMD. (2017). *Final 2016 Air Quality Management Plan.*

SCE. (2017, January). Proposed Project Elements GIS dataset.

SCE. (2017). *Traffic Impact Study for Riverside Transmission Reliability Project - Underground.*

Smith, G. (2017, July 24). Vice President of Lennar Homes. (J. Thomas, Interviewer)

Southern California Association of Governments. (2017). *Profile of the Unincorporated Area of Riverside County.* Southern California Association of Governments.

Southern California Edison. (2017, January). Proposed Project Elements GIS dataset.

Tam, A. (2017, November 9 and 13). Senior Planner with City of Jurupa Valley. (N. Takahashi, Interviewer)

Tasnif-Abbasi, M. (2017, November 9). Project Manager for Riverside Agricultural Park. (N. Takahashi, Interviewer)

TRC. (2016). *Soil Sampling and Excavation Work Plan.* California Department of Toxic Substances Control. Retrieved from http://www.envirostor.dtsc.ca.gov/public/community_involvement/2228199601/FRA%20Ag%20Park%20-%20Work%20Plan%20(Feb%2010%202016)(FINAL).pdf

Urban Futures, Inc. (2015, December 2). City of Jurupa Valley Economic/Fiscal Impact Analysis: Riverside Transmission Reliability Project. City of Jurupa Valley.

Waterboards Santa Ana - R8. (2017, December 22). *Santa Ana Region - Total Maximum Daily Loads (TMDLs)*. Retrieved January 3, 2018, from https://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/

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